THE AMERICAN FARMER.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . . *Virg.*

Vol. V. BALTIMORE, FEBUARY, 1850. No. 8.

Profits of Farming in East. Virginia.

By the Hon. Willoughby Newton, of Westmoreland, Va.

To the Editor of the American Farmer.

The valuable and interesting statement of Mr. Wallace, in your last No., reminds me forcibly of my promise (too long neglected) to furnish you an article confirmatory of the views of Mr. Ruffin, on the profits of agriculture in Eastern Virginia. The essay of Mr. Ruffin is so accurate and complete, that his views need no confirmation from any quarter, so far at least as agricultural undertakings under the like favorable circumstances with his own, are concerned. There are few who have access to the rich deposits of green sand marl by which his fields have been improved, and none (I may safely say) who equal him in the energy and skill combined, by which he has applied the means within his reach to the renovation of his lands and augmentation of his profits. Yet no industrious and inquiring farmer in this age of light, need despair. Though the brilliant results attained by Mr. Ruffin may not be within our reach, we may all realize profits fully equal to those attainable in any pursuit, in which the hazard of loss is not equal to the chance of success.

I herewith communicate three short and plain tables, exhibiting the capital invested, sales in *cash*, and *net* profits for a series of four years, on my farm, Mount Pleasant, in the county of Westmoreland, Virginia. The tables will explain themselves. It is not pretended that the statement of capital is accurate to a cent, yet it is as near an approximation to accuracy as could be made, or need be desired for any practical purpose. Many persons would, perhaps, think the capital employed overstated.

The statement of expenses, though not entering into details, is believed to embrace a liberal estimate of the actual expenses incurred. The blacksmiths' accounts, taxes and bills of clothing purchased, are mingled with similar charges for other farms, in such a manner that they could not be separated. There is no charge for physicians' bills, because for the years indicated they were almost literally nothing, there having been but two dollars paid during the time, for drawing two teeth. It is proper however to state, that during last summer a case of severe illness occurred on the farm, and a physician was called in. His bill has not yet been presented, and will be a proper charge for 1850, as the statements are made to exhibit the crops of each "shift" in turn, and the crop of corn of 1849 now on hand, and the wheat growing on the same field will come into the account for 1850, subject to all proper charges.

The charge for clover-seed is more than the expense incurred in some years and less than in others, but is about the average expenditure. The charge of fifty dollars for clothing, is for such articles as are not manufactured at home, out of the wool raised on the farm, much of the clothing being home-made. The credits for crops, &c. are for actual sales.

Nothing has been allowed for milk and butter, pork, beef, lambs, &c. furnished to my own large family—equal to at least four or five hundred dollars annually. Nor is any thing allowed for the increased value of the land, which, estimating it by the increase of the crops, since I purchased it, 12 years ago, is fully doubled; nor for the increase of the stock of all kinds upon it, the neat cattle having increased from about thirty head to near seventy. The slaves on the farm are so divided as to sex, that the laboring force in the course of nature will be kept up; so that interest, instead of hire, is claimed upon them as part of the capital, and no credit given for support of children or increase of stock.

The results arrived at are these, an annual *net* profit of 10 83-100 per cent. on the average, for four years, *in cash*, on the whole capital invested, including land, slaves, and stock of all kinds, and a net profit, *in cash*, of 12 37-100 in the last year of the series, which is the first of the second round of crops on the three field system.

This farm has been cultivated from the first year of my occupancy, as it had been for many years before, strictly on the three field system, from which there has been no departure. It contains about 560 acres of land, a small portion of which is marsh, and about three-fourths low ground, of good quality. The marsh has been enclosed separately, and is used, in the spring, to relieve the clover field of the stock, as long as they can be kept off, generally until about the 1st of June. The clover, I find, upon the three field system, of corn, wheat, clover, does not require sowing every year; frequently, the

fields are well taken except in spots, on which seed are sown, which accounts for the small expenditure in clover seed. When I purchased the farm, it was rented to an excellent tenant, at 120 barrels of corn and two-sevenths of the wheat crop, as the annual rent. The average crop of corn was estimated at 420 barrels, which was very near the actual crop; but the wheat crop was then so precarious, that no estimate could be made for that. I do not know what my own crops of corn have been, for they have not been measured. I have always regarded, with Mr. Tabb, of Gloucester, "the bill of lading the best evidence of the crop." By that, my last year's *sales* were 732 barrels, or 3,660 bushels; and the year before, rather less; so that my crops of corn may safely be put down at more than double the former estimated capacity of the land, for the consumption on such a farm cannot be supposed less than two hundred barrels. The wheat crops have increased in about the same proportion, for the two last years, having been near 1,200 bushels; whereas, before the land was limed and improved, they seldom reached 500 bushels of grain of very indifferent quality.

These results have been brought about by draining, deep ploughing (using the subsoil plough on parts of the fields), liming, clovering, and manuring with all the offal of the crops and other materials within my reach. I have used upon this farm no bought manure, except lime, and a few barrels of plaster, some years ago, until this season, a part of the crop of wheat now growing having been dressed with *guano*. Lime has been applied to nearly all the arable land, at the rate of 25 to 50 bushels to the acre, the larger quantity being applied to the strongest land. No part of it has been fallowed for wheat. I have frequently been urged to adopt the five field system upon this farm; but, whilst I have done so on other lands differently situated, with every prospect of success, I prefer, upon this, to "*let well enough alone*," being content with a clear profit of over 12 per cent., which promises to go on, slowly, but surely, increasing.

The small expense attending the cultivation of this farm may be, in part, set down to the credit of the three shift system. It sustains itself, furnishing meat, meal and hay in abundance, for man and beast. Nothing is purchased for the support of the farm, and something of almost every kind sold. Cattle, hogs, horses and mules, in abundance, for the use of the farm, are raised, and some to spare. Oxen are used entirely for the cart, and mules for the plough.

It may be well to remark that these profits have not been swelled by high prices obtained for crops sold; for, in this respect, I have been quite unlucky, having obtained for my corn, in Baltimore, only 55 cents in the year of the Irish famine, and the crops sold since not having averaged, *net*, 45 cents a bushel; whilst my wheat crops have yielded about $1 per bushel.

It will be perceived, also, that my land was purchased at what, in Eastern Virginia, is considered a high price, near $19 an acre.

I have thought it my duty to present this statement, not only in compliance with the promises of which you have so often reminded me, but because I really deem it important to the interests of the old States, especially of Maryland and Virginia, that the public mind should be disabused of the error, too commonly entertained, that agriculture among us is entirely unproductive. I am gratified that your enlightened correspondent, Mr. Holcombe, has taken up the subject; and I agree entirely with him in opinion, that in no part of the Union does agriculture offer more generous rewards to industry and science than in Delaware, Maryland and Virginia.

WILLOUGHBY NEWTON.

Linden, West. Co., Va., Jan. 14, 1850.

TABLE NO. I.

Capital invested at Mt. Pleasant, 560 acres of land, purchased twelve years ago, at	$10,000
Cash expended, from time to time, in the purchase of lime, in Baltimore	1,200
Cash expended in farm buildings and draining meadows, &c.	700
Slaves, of both sexes, young and old, stock of all kinds, and implements on the farm, at inventory prices	8,000
	$20,000

TABLE NO. II.

Net proceeds in cash of crops of corn, wheat, oats, hay and sundries sold from Mt. Pleasant, in the year 1846, being produce of one year, as taken from my account book		$2,444 11
Expenses of the Farm.		
Overseer's wages	$140 00	
Taxes	35 00	
Blacksmith's account and wear and tear of implements	75 00	
Part of clothing, not manufac'd	50 00	
Cloverseed, annually	25 00	325 00
Net profit, *in cash*, for 1846		$2,119 11
Net proceeds of sales of crops, &c., from Mt. Pleasant, in 1847, being produce of one year, taken from my account book		$2,012 87
Expenses same as 1846		325 00
Net profit, *in cash*, for 1847		$1,687 87
Net proceeds of sales of crops from Mt. Pleasant, in 1848, being produce of year, as above		$2,706 75
Expenses same as last year		325 00
Net profit, *in cash*, for 1848		$2,381 75
Net proceeds, in cash, of crops sold from Mt. Pleasant, in 1849, being produce of one year, as above		$2,800 90
Expenses same as last year		325 00
Net profit, *in cash*, for 1849		$2,475 90

TABLE NO. III.

Recapitulation of Profits.

1846	$2,119 11
1847	1,687 87
1848	2,381 75
1849	2,475 90
Net profit, *in cash*, for 4 years	$8,664 63

Or 10 83-100 per cent. annually, being 10 59-100 for the first year, 8 43-100 for the second, 11 90-100 for the third, and 12 37-100 for the last year.

Guano inspected in Baltimore, in 1848-9, 5,500 tons; its cost, $4,350; estimated expense, $2,175; net revenue, $2,175.

THE REYBOLD FAMILY.

A *Marylander*, passing through the State of Delaware, thus speaks of the farms and family of the Reybolds, so celebrated for their Sheep and Peaches and other good things. We copy the extract from the Leonardtown Beacon:—

"Awaiting here the arrival of Col. ———, I took a ride with the Presbyterian minister and a polite Mr. Cooper, out in the adjoining country, viewing the splendid farms and farm buildings and most sumptuous homesteads—the latter uniformly with fine yards crowned with the fullest variety of shrubbery, flowers, &c. The wheat fields remind one of the month of May. After going about eight or ten miles, we came to the house or rather palace of Reybold, the great grower of sheep, fruit, and every thing that can add to the comfort and purse of man in the agricultural way. There the old patriarch enjoys his fine estate with all its tasteful improvements, surrounded by six sons and four married daughters with their families, on their respective estates, which are fully equal to his own. I did not ascertain the individual product of each, but I stopped at John's, where I saw two corn houses or cribs,—each 120 feet long, 16 feet pitch and 8 feet wide—in which John was housing a crop of corn that he and others thought would reach 15,000 bushels, the product of something over 200 acres. All this family wealth originated in the industry and well directed enterprise of the patriarchal father, who yet enjoys a fine robust, healthy figure, with a complexion and unimpaired mind that promise years of usefulness to his country and family. Having seen the corn cribs, I made the effort, though darkness was coming on, to see the stacks in the field, for here they cut all off, and husk from the stacks in the field, and only then to haul in the corn to the house or crib. Passing to the field, the best of which we did not see, we met John at the head of his hands about sixteen in number, and in the dress of the foreman, he having endured his full share of the labors of the day. He was recognized and approached our carriage with the best manner and feeling, inviting us to spend the night with him, which invitation we were obliged to decline doing, though we had a ride of ten miles before us to this place. I would have been greatly pleased to have viewed the field, and to have witnessed the laborers' enjoyment of the abundant supper which we saw in preparation in an outbuilding, near their sleeping apartments."

Bone Dust.—The following we gather from *Johnston*, who is admitted by all to be good authority.

Eight pounds of bone-dust are equal in phosphates to 1,000 pounds of hay or wheat straw.

260 pounds of bone dust, are sufficient to supply all the phosphates contained in the crops grown during a four years rotation.

Bones should not be ground too fine.

The necessity of bone manure to pastures, where milch cows graze, may very easily be imagined from the fact stated by Johnston, that "the milk of cows contains about half a pound of the phosphates in every ten gallons."

"Animal tissues," says the same authority, "when used as manures, ought to be well covered with earth, or ploughed under, in order to facilitate their decomposition, and at the same time to prevent the escape of the gases formed during this process."

THE FLOWER GARDEN—FEBRUARY.

Prepared by John Feast, Florist, 279 Lexington st. for the American Farmer.

The floral department in the house will begin now to assume a different appearance; more plants will be coming into bloom; the *Camellias*, especially will be in their greatest beauty. Care must be taken in supplying them with plenty of water, so that the roots will receive it throughout the whole ball of earth. It is better to be guided by this course than giving a little at a time, as the lower part of the earth scarcely receives any moisture, and much injury is done to plants when treated in this way, besides not producing so fine a bloom. Syringe over the tops occasionally in fine weather, which will be found a great benefit to the appearance, and strengthens and makes them shoot stronger wood, as they will begin to grow this month.

Azaleas will soon be in flower, and will require attention by liberal supplies of water. Have them neatly trained and tied up, and divest them of the under leaves, if any appearance of a rusty color; they are apt to look in this way if attacked with the red spider, but more so after such a dry season as the last.

Geraniums that have been topped will begin to grow, and require larger pots; and to have neat plants, keep them dwarfed, by tieing down as near the pots as possible; in this way, they will throw out their side shoots and numbers of flowering stems, which is not common for tall plants to do; they also flower much stronger if kept near the glass, and plenty of air given. Place them in a cool part of the house, to keep them hardy, and a fine bloom may be relied on, if care is taken to destroy the aphides or fly, so soon as the appearance of them is visible, by a fumigation of tobacco smoke, and a syringing of water occasionally through the growing season.

Bulbous roots, in pots, will require their sized pots for flowering, as *Amyrillus*, *Babianas*, *Ixias*, *Sparaxis*, *Hypoxis*, *Lachevalias*, *Antholyzas*, *Gladiolus*, *Hacnianthus*, and several others that flower early. They will do well in a soil two parts loam and one part leaf mould, with peat and a little well rotted manure, mixed well together, and give plenty of drainage.

Achemenes may be repotted this month, to have an early bloom; also, that splendid plant, *Glorioss Superba*, might be brought forward, and given a little bottom heat, and, if properly treated, will amply repay when in bloom for all the trouble bestowed.

Fuchias will require attention, and cuttings put in, also *Cinerarias*, *Verbenas*, *Panseys*, and *stock Gilliflowers* may be repotted in the sized pots for blooming.

Cuttings may be put in of *Camellias*, *Roses*, and most flowering plants, and grafting done of such as require that process, and seeds sown of different tender annuals, and others intended to be turned out in the borders for an early bloom.

All hardy plants in frames will require to be separated and repotted, as *Auriculas*, *Polyanthus*, *Hepaticas*, and different other frame perennials.

Garden Fruit Trees.—Prune these, if they need it, about the last of this month. Cut none but dead limbs off, except where they interlap; be sure to smooth the wound, and apply the plaster we recommended last month.

Shrubbery, of all kinds, may be planted out as soon as the frost is out of the earth.

For the American Farmer.

MISCELLANEOUS CROPS.

ROOTS AND VEGETABLES, CULTIVATED FOR STOCK.

SWEET POTATOE.

The cultivation of this root is becoming of much importance in the tide-water counties of Maryland, Virginia and N. Carolina, many thousand bushels being annually shipped to the Northern and Eastern markets, besides the home consumption. The following is the analysis of its *inorganic constituents*—one thousand pounds yielding 10.90 lbs. of ash:

Silicic. acid,	0.24	Phosphate lime,	2.78	10.90
Sulphuric acid	0.16	Carbonate "	0.08	
Organic acids,	0.54	Potash,	6.37	
Magnesia,	0.07	Soda,	0.66	

Thus it will be seen it contains 58½ per cent. of potash, and 25½ per cent. of phosphate of lime (bone dust), or 84 per cent. of the two. This shows us, if we would cultivate it to advantage, we must supply the soil with these, if deficient, bone dust and ashes.

Varieties.—There are several varieties under cultivation: The *Yam* is a large, somewhat globular root; the *cuticle* rough, and somewhat corrugated, of a yellowish white color; the substance is yellow, somewhat tinged with red. The *Yellow Bark* is a long, somewhat crooked root, yellowish white cuticle; substance white. This variety is tougher than others, and not so good an eating root; some prefer it. It grows to a considerable size, and the yield per acre is generally large. The *Red Spanish* is somewhat globular, elongated at the extremities; the cuticle is smooth, of a redish purple color; the substance yellowish white, or white. This is the best variety for eating, and, upon a good soil, the yield is greater, and more certain than the *Yellow Bark*. The *White Spanish* is, in shape, between the Red and the Yellow Bark, and is, I think, a cross of the two; the cuticle is white; substance white, and, when cooked, mealy. It attains a larger size than the Red, and the yield is large.

Raising Slips.—The most certain and economical plan of raising potatoes is from the slips. These are raised in beds from 5 to 6 feet wide. The ground should be trenched out to the depth of 10 or 12 inches, and filled up with decomposed vegetable matter, the scrapings from woods, swamp mud, manure, &c. to within 3 inches of the surface. Upon this, the potatoes are laid, from 2 to 3 inches apart, and covered with the earth removed. The bed should be planted in March or April.

Preparation of the Land.—The land intended for potatoes should be well covered over with leaves, decayed vegetable matter, scrapings from the woods, &c., the previous winter, and ploughed in to the depth of 12 or 14 inches. The following spring, it is to be reploughed, and laid off with a shovel plough, in beds 3 feet wide; upon these beds, apply *compost* mentioned heretofore, 300 bushels per acre, and ridge it up, by running 2 or 3 furrows each way, throwing them together, and dressing off with hoes.

Planting Slips.—As soon as the weather is seasonable, after the slips attain a sufficient size, they are broken off close to the root, and set out 18 inches apart in the ridges. For setting out, the ground should be moist, but not too wet.

Working.—The potatoe requires to be kept entirely free of grass; and, for this purpose, they must be frequently hoed and hand weeded. In weeding, care must be taken not to work so deep as to come in contact with the roots. Before the roots attain much size, the '*shovel plough*' should be run between the ridges. Every attention must be paid to keep them *entirely* free from grass. If the plants show a disposition to run too much to vine, they must be shortened; for this purpose, small switches are frequently used.

Harvesting.—Upon the decay of the leaf, in September, they should be dug, or turned out with the plough. After the roots turned out have been collected, a harrow should run over the ground, as, no matter how careful, some roots will remain covered, which the harrow will bring to the surface.

Yield.—The yield is from 2 to 400 bushels per acre of merchantable potatoes.

Preserving.—If the potatoes be placed in a box or hogshead, upon their ends, first placing a layer of powdered charcoal or saw dust at the bottom, then covering with the same—then another layer of potatoes, and so on until full—they may be preserved for months without injury. The difference in value, in the fall and in the spring, will amply repay for the trouble.

IRISH POTATOES, IN LAZY BEDS.

In raising this root, there is no plan or mode of culture which offers more advantages, in economy, production and improvement, than that of "*lazy beds.*" By this mode, there is great saving of labor, increased productions, facility of harvesting, and permanent improvement of the land.

The land should be well limed or marled, and ploughed to the depth of 12 or 15 inches, and harrowed perfectly level. Lay off in drills 18 inches apart, 6 or 8 inches deep; fill up with swamp mud, or decayed vegetable matter, and, over this, ashes, at the rate of 30 bushels per acre. Plant the potatoes, cut in pieces, two eyes to each, 12 to 15 inches apart. The whole bed is then to be covered to the depth of 6 or 8 inches with straw or '*pine tags;*' the latter are preferable. This covering prevents the growth of grass and weeds, and retains sufficient moisture in the soil, which is so essential to the development of the tuber. The improvement of the land will amply repay the trouble of covering, &c. In harvesting, all that is necessary is to remove the covering and pick them up. The finest potatoes I have ever seen were raised upon this plan, with the largest yield.

BEETS.

With the exception of turnips, this is the most important of the root crops. The kind grown for stock are the mangel wurtzel and sugar beet. An aluminous or clayey soil is best adapted to them: in this it differs from the turnips and carrot, which succeed best upon a light soil.

Preparation of the Land.—The soil being adapted, it should be turned over to the depth of 16 or 18 inches—the deeper, the better—reploughed, harrowed and cross harrowed, until it is as fine as possible. The drills are then laid off 18 inches apart, 10 or 12 inches deep; these are to be filled up, to within 4 or 5 inches of the top, with fine manure, and entirely with decomposed swamp mud, if it can be had—if not, the scrapings of woodland. The soil is then drawn upon the drill, so as to ridge some 3 or 4 inches. A wooden wheel, some 4 or 5 inches wide, with small square pegs projecting about an inch, and 4 inches apart, is then run down the drill, to form the holes for the reception of the seed. From 2 to 3 seed are deposited in each. A stout

roller, 4 or 6 inches wide, is then run down the drill, to cover the seed and compress the earth firmly. A large *grindstone*, fixed somewhat like a wheelbarrow, is the best roller. The seed may be sown from the 15th April to the 15th May.

Preparation of the Seed.—The seed should be soaked in warm water for two or three days, or until they commence vegetating, then covered with ashes and plaster. If thus treated, they speedily vegetate.

Cultivation.—So soon as the plants are fully up, they should be thinned, so as to leave only one in each place; if any be missing, they can be replanted. They are then worked with a light hoe, and the rows hand weeded. After this, until the plants attain a large size, they are worked with the cultivator, removing the front tooth; the row, at each working, must be hand weeded. When the beets grow so as to fill up the space between them, every other one is to be removed, and fed to stock. After this, they are to be well hoed and hand weeded. Frequent stirring of the earth, and keeping it entirely free from grass, is essential to their growth.

Harvesting.—When of sufficient size, they may be gathered for feeding. The whole may be finally harvested in October. The tops are to be removed and fed to cattle, and the roots stored in a dry cellar.

CARROTS.

Soil.—A light sandy soil is the best for this crop.

Preparation of Land.—This is prepared in the same way as for beets. The seeding and after culture is also the same, except they are not left so thin. They are an excellent food for stock of all kinds, especially for milch cows. Horses are said to grow fond of them after a time, and to keep in fine order and healthy when fed upon them.

ARTICHOKE.

The Jerusalem artichoke is one of the most prolific roots grown, and one of the most important in the rearing of hogs. It requires no trouble but that of first planting.

Planting.—Plough to the depth of 12 or 15 inches, and harrow well. Lay off the rows two feet apart each way, and plant the root, cut in small pieces, two eyes to each. This is all that is requisite. The yield is about 1,000 bushels per acre. A five acre lot will keep 200 hogs from 1st of October to the 1st of December. The hogs should be turned into the lot, "*to root for themselves.*" The stirring of the land will be equal to a ploughing; and the drippings of the hogs will keep up the land. After the hogs are removed, the land should be harrowed. They are said to thrive well in woodland, from which the undergrowth and small trees have been removed; if so, there is much woodland that could not be turned to a better use. H. M. P.

P. George, Va., Jan. 15th, 1850.

For the American Farmer.

PEAS, BEANS, BUCKWHEAT, TURNIPS.

Upon a silicious soil, *Peas* form one of the most important crops in a rotation. This culture seems to free the land of weeds, and noxious insects, so injurious to the grain crop, especially wheat. It is a leguminous or papillionaceous plant, and like all others of this class, is ameliorating in its character. It forms with the exception of clover and tobacco one of the best preparatives for wheat; and indeed, upon a sandy soil, is even superior to clover. Its luxuriant foliage extracts a large amount of carbon from the atmosphere, while its roots ramifying in the subsoil, seems to bring up a large amount of the inorganic matters lost to the soil—hence its peculiar value as a fallow, especially upon soils deficient in vegetable matters. The *vine* grows most luxuriantly upon soils containing lime, especially so, upon marled land, in which both lime and magnesia are present; they also require *Sulph.* and *Phosphate of Lime* to develop them in the greatest perfection. The *seed* requires a soil rich in *Phosphates*, and the *Nitrates of Potash and Soda.* We may therefore, so regulate the crop, as to increase the growth of the vine, or the produce of the seed; of course if intended for a fallow, our aim should be the former.

There are several varieties of peas grown, both for seed and fallow, each having its advocates. The *Black eye* and *Yellow clay* pea are I believe the best for fallow and for seed. The Marrow fat has been highly spoken of, both for fallow and for its feeding properties; from the luxuriance of its vine it may be admirably adapted for the former.

Seeding.—The land should be well broken up, and the seed sown broadcast. One cause of the frequent failure of this crop, is thin seeding: of the larger varieties, at least *four bushels* per acre should be seeded; of the smaller varieties from two to three. After seeding, they should be well covered with the harrow. They may be sown at any time from April to July; if the soil is suitable, they soon cover the ground and prevent the growth of weeds. If intended for fallow, they should be turned under before maturing the seed.

Gathering.—When the vine begins to dry up they should be pulled up, and the *seed* flailed or whipped out, and run through the fan mill. The straw should be thrown in the farm yard for manure. The yield per acre, is from thirty to forty bushels.

Feeding qualities.—As an article of food, peas are superior to any other vegetable, except beans; being richer in *gluten*, and being nearly as rich in fatty matters, as any other. For stock of all kinds they will be most valuable, especially for sheep and hogs. When fed to stock they should always be either boiled or steamed. When corn is high and peas low, the latter are preferable for fattening hogs; of course the preference must be regulated by the comparative market value of the two. As a fallow, especially upon lands not sufficiently rich to produce remunerating crops of clover, the *pea fallow* is of the utmost importance. If possible, two fallows should be obtained in the same year. For the first, the peas should be sown as soon as the spring is fully opened, and one bushel of *Bonedust*, and two pecks of *Plaster*, applied to each acre; when they commence flowering freely turn them under, and sow another crop, to be treated in the same way. By this means, clover sowed in the fall, with the last fallow, will have a luxuriant growth the next year.

BEANS.

The most economical plan of cultivating the *bean*, is to plant them in the hills with corn. They should be planted when the corn is from two to three feet high—4 to 6 in each hill; the corn stalk seems as a support to them, and if the soil be good, or the hill composted or manured, they will not prove detrimental to the corn. The white or *heavy bean* is the best for field crop. The yield per acre is from 20 to 30 bushels, and they usually command *One Dollar*; their cultivation is, therefore, a matter of importance to the farmer, especially if saving labor be an object, as the same workings answer for

this, as for the corn crop. In gathering, they are pulled up, and the seed flailed out, and run through the fan mill.

Nutritive matters.—The *bean* is the richest known vegetable in *nutritive properties*, being especially rich in gluten. Upon plantations, if *beans* were substituted for a part of the meal usually allowed negroes, it would add greatly to their comfort, health and strength. One peck of meal, and a half gallon of beans per week, would afford them more nourishment than three gallons of meal.

BUCKWHEAT.

This important crop has been too much neglected in the south. It is particularly adapted to a silicious soil, and will grow upon a soil which will scarcely support any other crop; it is rapid in its growth, and does not exhaust the land. As a green fallow, it is the cheapest, and one among the very best. A poor sandy soil may be improved in two years, so as to bring remunerating crops, by the following plan: Plough the land to the depth of 6 inches, and sow oats in February: fallow them in early in June, to the depth of 8 inches; sow in Buckwheat and fallow in in August to the depth of 10 inches; resow in Buckwheat, and fallow in in October to the depth of 12 inches, marling or liming before fallowing; let it lay on naked fallow during the winter; resow in oats in February, with 2 bushels of bone-dust per acre; fallow in in June, to the depth of 16 inches; resow in Buckwheat; fallow in July; sow in Peas, and apply 1 bushel of plaster per acre; fallow in October to the depth of eighteen inches; sow in wheat and clover with ten bushels of unleached ashes, and 1 bushel of salt per acre. The wheat crop will repay the whole cost, the first year. Each crop fallowed in, brings up from the subsoil, different inorganic substances, which are deposited in the soil, by the decomposition of the plants, the decomposition of the crops, and the opening the land by the fallows, and the naked winter fallows renders the soil prepared to absorb and retain large amounts of nitrogen from the atmosphere, and ammonia by rains and dews, which gives rise to chemical changes in the soil, and the formation of large quantities of *nitrates*; the additional depth of each fallow deepens the soil; and if a clay subsoil, will change entirely the character of the soil. Therefore we are improving and changing the soil by each process.

Seeding.—Buckwheat may be seeded at any time from April to August; but it is best to sow upon the "*stubble fallow*," after wheat, as it then comes in at a time when the farmer is somewhat at leisure; that is, after seeding wheat. And the farmer should so arrange, as never to be pressed by two crops at the same time; which by judicious management, and economy of time, is easily done. The stubble should be turned under to the depth of 8 or 10 inches; and if intended for cropping, 2 pecks, if for fallow 4 pecks, sown to the acre with 2 bushels of *bonedust*, and the land well harrowed and rolled.

Harvesting.—In from 9 to 10 weeks after seeding, the crop will be ready to harvest. It should be cut with grass blades, and collected with horse rakes. It may be got out with a wheat thrasher, or flailed out. The yield is from 30 to 40 bushels per acre.

Feeding properties.—As a morning luxury for man, "*Buckwheat Cakes*" are proverbial. As an article of food for stock, it is very valuable. It is especially useful for fattening hogs and beeves, ground and mixed with "mash" prepared from boiled corn cobs and vegetables. It will fatten a horse more speedily than either oats or corn.

TURNIPS.

There is no crop more neglected in American husbandry than the Turnip; and none so likely to repay the cost of cultivation. The climate of the middle states is as well adapted to its general culture, as any section of the globe. The rearing of sheep and the growing of turnips go hand in hand; we cannot be successful in the one without the other. Nor can we hope to arrive at the acme of agricultural improvement until the general introduction of both.

Preparation of Soil.—As soon after harvest as possible, the lot intended for turnips should be deeply ploughed, harrowed and cross harrowed. The drills should be laid off 18 inches apart, and from 6 to 8 inches deep; into the drills a compost of swamp mud and manure, 300 bushels to the acre should be placed, and over this a mixture of 2 bushels of bone dust and 10 of ashes; cover lightly with earth, and drill the seed at the rate of two pounds per acre. The *Ruta bags* and large Norfolk are the best. When the seed come up, the plants should be sprinkled with animal oil, and thinned to two inches.

Cultivation.—The crop is best worked with the cultivator, removing the front tooth; this should be run through them twice a month, gradually thinning them to 6 or 8 inches; the rows should be hand wed, or worked carefully with a small hoe.

Gathering.—A very good plan, if the field is large, and the farmer has sheep, is to dig every other row, and eat off the remainder with sheep. This can be done by means of a hurdle fence, moving it as the sheep consume the roots.

Preserving.—After digging the tops are to be removed, and used for feeding, and the roots placed in a dry cellar, upon straw, and covered with straw.

Feeding.—To sheep, they may be fed cut small, for other stock, it is preferable to boil them. Stock of all kinds are remarkably fond of them, and eat them with avidity. For fattening hogs and beeves there is no better food.

Prince George, Jan. 1st, 1850. H. M. P.

For the American Farmer.

THE SUN-FLOWER.

For fattening purposes, this is one of the cheapest and best plants that can be raised. The yield is about fifty bushels per acre,—which will yield fifty gallons of oil, and fifteen hundred pounds of oil cake. They are especially adapted for fattening beeves, hogs, fowls, &c.

Planting.—The ground should be well ploughed and harrowed, and laid off in rows twelve inches each way, the *seed* being dropped in the angles. The necessary quantity of seed is from four to five pounds per acre. They should be planted in April. The plants require no after culture. So soon as the seed turn black, the heads should be removed, when the whole are gathered; the seed are easily flailed out. The stalks of an acre of ground, will yield one thousand pounds of *Potash*, for which purpose they can be burnt, and used in making compost. If possible, they should be grown upon *swamp-land* well drained; this is necessary, as they rapidly exhaust the land of *potash*. The seed can be bruised in a common cider-mill, and if the oil be wanted, pressed in the cider-press. The oil burns with a brilliant flame, and fragrant odour. Most farmers would find this to afford the cheapest and best light. The leaves, while green, afford most excellent food for stock.

PUMPKINS.

These succeed only upon the richest lands. Upon such lands they are grown among corn. They sometimes attain an enormous size. They are eaten by stock of all kinds, even horses, and cause them to fatten rapidly. The *seed*, which are usuly thrown away, should be carefully preserved, as they form an extremely valuable oil cake for fattening purposes. They may be bruised in the same way as the sun-flower seed. They are especially useful given to stock suffering from disease of the kidneys.

CIMBLINS.

For early feeding for hogs and cattle, the cimblin is one of the most useful vegetables which the farmer can cultivate. They contain an equal quantity of nutritive matters with other vegetables, and the yield is much greater and continuous. Four acres of cimblins will keep one hundred hogs, or forty head of cattle, from June to September. They cause a large increase of milk in cows, and of a richer quality. They are particularly useful for feeding sows, with suckling pigs.

Preparation of Land.—Plough the soil deep, and harrow well. Lay off in hills four feet apart each way; into each hill, place one quart of compost, or fine manure. Plant four seed in each hill, and when properly up, thin to two. Care must be taken not to plant them near pumpkins or gourds, as they will cross with these and the fruit be ruined. Tomato plants may be set out among the vines.

Working.—The land should be ploughed before the vines commence running, and the hills worked three times thereafter, with the hoe. This is all the work they require.

Feeding.—The fruit should be gathered in the evening, for the next day's feeding, pulling all of a sufficient size. They are cut in small pieces for several hours, until perfectly soft, then mashed. This "mash," and a supply of fresh clover, will be all the stock require. To every thirty gallons of wash, one pint of salt should be added.

TOMATO.

This is also a most excellent addition to the food of stock. Planted with Cimblins, after the first ploughing, they require no separate working. Added to the wash of cattle, they form a wholesome and valuable food. They are especially useful in summer feeding.

GROUND OR GOOBER PEA.

For hogs, this is an important addition to other vegetables. The soil is prepared similarly as for sweet potatoes, and the peas planted two feet apart, two in each hill. They ripen under ground, and the yield is very great. They come on a month before artichokes, and will serve for food a month sooner. The hogs are turned upon them to feed themselves. They amply repay the cost of cultivation.

FEEDING STOCK.

Every farmer, if he has not already done so, should provide himself with one of Mott's Patent Boilers; the cost is moderate, in consideration of the saving, and additional value of the food. All the corn-cobs should be saved and crushed, for boiling, to form the basis for washes. To this the vegetables or roots should be added in their season, and the whole thickened with oat or buckwheat, rye or corn meal. Plenty of salt should be added, as this is the most profitable way of applying it to the land. A sufficiency of the "wash," should be given with green clover and hay to satisfy, but not satiate each animal. All the stock upon the farm should be kept up in the stable lot, and this kept well littered with mud, leaves, scrapings of wood, &c., to absorb the liquid excrements. No farmer can hope to improve his land rapidly, who neglects this; as during summer the dripings of cattle is more than in winter, and if kept up, they perspire less and their liquid excrements increase. The additional quantity of manure, the increase of products, and the increase in the value of land, will amply repay the trouble. H. M. P.

Mayfield, P. George, Va., Feb. 1st, 1849.

CHAPPELL'S SALTS—ON CORN IN VA.

EASTVILLE, VA., Nov. 23d, 1849.

To the Editor of the American Farmer.

DEAR SIR—I wrote you last spring of an experiment I was about making with "Chappell's Salts" on oats and corn. Both crops are gathered and I now send you the results. The salts were sowed broadcast on poor sandy land on oats and clover at the rate of two barrels per acre, on the 25th of April; for six weeks the improvement in the looks of the oats was visible as far as the spot could be seen, and this led me to anticipate a large yield, but when the oats were cut they seemed little better than on an adjoining land not manured. Owing to the difficulty of thrashing a small detached part of my crop, I have no means of ascertaining the precise increase of yield. The clover starved out on the dressed as well as on the undressed land.

On the same day, viz: April 25th, the corn having just been planted, I applied one barrel of "Chappell's Agricultural Salts" on a half acre of poor sandy land broadcast, intermitted a half acre, and applied another barrel in the same way on the third half acre. I then left 6 rows, the same depth as the half acres, undressed, and applied a small handful on every hill for six rows. Finally I applied a handful on every second hill for six rows. Throughout the entire season the salted corn was far ahead of that not dressed, the stalks larger and more luxuriant, and the ear apparently much heavier. Indeed I felt satisfied until the crop was measured that I should be reimbursed for my outlay in the first crop, upon being gathered and submitted to the test I found,

1st. The first half acre dressed with one barrel of the Salts, containing 29 rows 57 deep, 1653 hills, yielded 7 flour barrels of ears as it came from the field.

2d. The half acre undressed containing 28 rows 57 deep, 1596 hills, yielded 5 flour barrels of ears as it came from the field.

3d. The 2d half acre dressed with one barrel of the Salts containing 28 rows 57 deep, 1596 hills, yielding 6 flour barrels and one bushel of ears.

4th. The six rows without the Salts 57 deep, 342 hills, yielded two bushels and a half of ears.

5th. The six rows in which every hill received a handful, 57 deep, 342 hills, yielded three bushels and a half, and a half peck of ears.

6th. The six rows in which every second hill was dressed, same number of hills, yielded 3 bushels of ears.

It is proper to add that in the half acre not dressed there was a spot of a little over 20 feet square, much better than the surrounding land, as shown by the superior yield. This was an accidental circumstance, and of course increased the relative yield of that half acre slightly.

From these data, I think we can arrive at a pretty accurate estimate of the value of "Chappell's Salts" on corn in our lands. Thus it would appear by adding the yield of the two half acres dressed, I obtained from an acre 13 flour barrels and one bushel of ears, by the application of 2 barrels of Chappell's Salts, costing $3 a barrel in Baltimore, and 25 cents freight, total $6,50.

By doubling the yield of the undressed half acre, we get ten flour barrels of ears. Difference to pay me for my outlay, 3 flour barrels and a bushel of ears, or in round numbers one barrel of corn, worth say $2,75 to pay for $6,50.

The increase of yield of the six rows dressed in every hill over that not dressed will be found by calculation to be about nine bushels of ears per acre, as the corn was planted 3 feet 9 inches by 4 feet.

And the increase of the rows in which every 2d hill was dressed, was in about the same proportion, or a little under 4½ bushels of ears per acre.

If this land should yield me next year a good crop of oats and a heavy set of clover, it may still compensate me for the outlay.

Yours respectfully,
NORTHAMPTON.

WORK FOR THE MONTH.

FEBRUARY.

As our legislature is now in session, we know not how we can better commence our *memoranda* for this month than by reminding the members of that honorable body that the agriculturists of our State look forward with hope that they will do something of a substantive character to promote the art and science of agriculture. It is admitted by all, that agriculturists as a class are the foundation upon which the superstructure of human society has been built, and yet strange as it may seem, with very few exceptions little or nothing has been done to promote their interests, or place their calling upon that footing of pre-eminence to which they are entitled. It is not our object to say to the legislature what they should do—but this we will say, it is expected by the great constituent body, that they will do something worthy of the representatives of the people of Maryland, that the first and greatest interest of Maryland will no longer be treated with neglect. To apply the remedy is the province of the members of the Legislature, and in their hands we leave the matter for the present.

With this invocation to action to the General Assembly, we shall turn to those matters that ought to be seen to

ON THE FARM.

Accumulation and care of manure.—We have so often called the attention of husbandmen to those matters on their farms calculated to be converted into manure, that it is not necessary to point out what is susceptible of being converted into manure, but we will here admonish them to permit nothing to go to waste that is of that character; and it may not be amiss to state that their cattle, barn-yards, and other places where their stock may be kept, should be so shaped as to prevent the riches of their dung—the liquid portions of it, from being washed away, and we would impress this truth upon their serious consideration—that one load of manure that is well kept and preserved, is worth two to which no attention has been paid. All manure before being hauled out, would be greatly improved by having 1 bushel of plaster mixed with every twenty loads of it.

Liming and Marling.—With regard to the proper time for applying *lime* or *marl*, we would remark, that any time is a proper one, the great thing being, when the land may need it, that the calcareous principle should be supplied. Perhaps as good a time as any to apply it, is when the corn ground is flushed and harrowed, to be intermingled with the soil by a second harrowing. It may be applied under similar circumstances to any crop, with the assurance of resulting benefits, if not the first year thereafter, certainly many succeeding ones. We have known it when applied to grass land one, two, and three years, before it was broken up, to be followed with decided advantages. This where circumstances may concur to make such applications convenient, is, we are disposed to think, as good a mode of application as any other. When thus applied, it never fails to improve the character of the grass, both in quality and quantity, while by its own specific gravity, the lime finds its way into the soil, where it performs its chemical manipulations and peculiar offices effectually and well, fully as much so as if its application had been upon an inverted furrow. Such being the case, it is immaterial when and how it may be applied, so that the application be upon the surface, that being essential to enable it to become intimately mixed with the surface soil, as it is important that it should have an opportunity of acting upon the entire body which may have been turned up.

In all applications of lime or marl to sandy land, of a light texture, we would always prefer to compost either substance with *clay*, in the proportion of ten loads of the latter to whatever quantity of either of the former we might intend to apply to an acre of the land; we would let the compost remain in pie a few weeks, when we would work it over, put it up in a cone like pie again, where we would suffer it to be for two or three months, and then, after first shoveling it over again, spread it on the ground, which should be previously manured, ploughed and harrowed. Having spread the compost, we would harrow it thoroughly in, by lapping the furrow. By such process we should expect to increase the tenacity of the soil, and to a certain extent, prevent the sinking of the lime or marl, besides imparting to the land a considerably increased capacity for retaining moisture and resisting the influence of evaporation. Wet lands should be drained before lime is applied to them.

The question as to the quantity of lime that ought to be applied to an acre of land, is rather a mooted one, which, though often discussed, is still unsettled. The maximum, however, seems to be pretty well fixed in the agricultural mind, upon land of first quality, charged with vegetable remains, at a hundred bushels. We nevertheless believe that even upon such soils, that for all present purposes, one half the quantity will answer fully as well, provided small doses be subsequently given to it, either annually, or at the commencement of each rotation, as may best suit the convenience of the farmer, until the quantity applied may amount to one hundred bushels, which quantity, we believe to be sufficient for fourteen or fifteen years; and that after such quantity may have been applied, that doses of five bushels per acre, annually applied, will answer all purposes of vegetation. M. Puvis, a French Chemist of distinction, who has made the subject one of deep interest and research, and who

has also had great practical experience, is of opinion, that doses of 25 bushels per acre, until the maximum point shall have been reached, is better than the larger ones. Lands of *medium quality*, should not be treated to more than half the quantity recommended for strong lands, and upon poor thin sandy lands, we would not advise more than twenty bushels per acre, as the first dressing, and not then, unless they had previously received a good dressing of strong barn yard manure. And we hold it as an indisputable truth, that all lands, after being limed should be set in clover or grass, to enable them to accumulate a proper supply of vegetable matter, to be acted upon by the lime and converted into food for the plants.

As a general rule, it may be assumed, that land will bear twice the quantity of marl that it will of slaked lime, and hence, where it may be used in its stead, that that rule should be observed. Some marls are much richer in the calcareous element than others, but we should entertain no apprehensions upon that score, as from the effete nature of the calcareous matter in all marls, no possible injury need be feared, provided the quantity applied is not more than double that recommended for lime. Where a farmer has *marl* upon his estate, or can procure it at a reasonable rate, we think he would find it to his interest to use it instead of lime, because, the former contains in its constituent elements, other matters beside lime, which when incorporated with the soil, will act as nutritive manure, as bone earth and animal matter, thereby adding to its value. Oyster shell mould, which besides lime, contains an appreciable quantity of vegetable and animal remains, is a very valuable addition also to any lands which may require liming. We have used it with the best effects, and witnessed its improvement of the land upon which we applied it for many successive years.

The good effects of lime in improving the productive capacity of land has been of late years so well established in practical husbandry, that it is hardly necessary to dwell upon it here, but it may probably be not amiss to specify a few of its offices. They are:

1. Lime tends to convert the vegetable matter into vegetable food, thus performing the office of a solvent or converter of innutritious matter into nutriment.

2. It corrects the acidity of soils by uniting with free acids, or decomposing poisonous metallic salts.

3. It forms a part of the vegetable structure, and is properly inorganic food.

4. Like all other alkalies it also contributes to electrical effects, which may be regarded as a kind of stimulus to the vital functions.

5. And among its other virtues, when applied in sufficient quantities, it tends to break down the tenacity of *stiff clays*, improve their friability, and prepare them to be acted upon by the atmosphere, while its effects upon sandy soils, increases their tenacity, greatly improves their power of retention, and as a consequence, to some extent, prevents the loss of nutritive manures by evaporation or infiltration.

Management of pastures.—As every farmer and planter should have a pasture for his stock, we deem it necessary to say that all may greatly improve the character of the grasses grown thereon by treating each acre in pasture to a compost comprised of 5 bushels of lime, 5 bushels of ashes, 1 bushel of salt and 1 bushel of plaster. If any should doubt the efficacy of this top-dressing, let him try it on one acre and judge for himself by comparison. If he will only make this experiment, we have no fear about the result—none that he will not next year so dress the residue of his pasture. Those who may have *marl*, by applying fifty bushels to the acre will find in it an excellent substitute for the compost named above, or in the absence of that, 5 bushels of bone earth will answer excellently well. Whichever may be applied should be harrowed in and rolled.

Fencing.—If you have not already procured your fencing stuff, do so without any farther delay, as after this month it may be too late to fell the timber. For the mode of preparing the posts, we refer you to an article in another part of this month's journal.

Fence sides.—If your fence sides are infested with growing bushes, brambles and briars, cut them down and root them up. You may take our word for it, that such incumbrances, while they exhaust the soil and rot the fence, never fail to earn for those who tolerate their growth an unenviable name—the stranger who may pass your farm when he sees such evidences of neglect invariably makes the invidious remark—see there's a slovenly and neglectful farmer.

Out buildings.—If any of these need repair, have them mended, after which cleanse and whitewash them. Attentions of this kind are not alone promotive of one's interest, but they conduce to health and comfort, and make a favorable impression upon the public judgment, a thing that no man can afford to be indifferent to, as one of the elements of human happiness arises from the conscious belief, that a man deserves and stands well in the affections and respects of his fellow men. Besides, every bestowal of pains which a man may make to increase the comforts and improve the appearance of his possessions, instinctively make him love his *home* the more—enlarge his claims to self-esteem, and adds immensely to the volume of his neighbors' regard and consideration.

Fields intended for Corn.—If the ground you intend to put in corn next spring is a clover-ley, manure and plough it up deeply, leave it until just before you are going to plant your corn, then harrow it until you get it into fine tilth. This done, sow on each acre of it two bushels of salt, harrow it in, roll, and plant your corn; and you will experience but little annoyance from grub and other worms, as the salt will give them their quietus just as notably as though you had done it with a bodkin. Thus, instead of being depredated upon, and injured by these troublesome serpents, your soil will be enriched by the decomposition of their bodies, and they made to encourage the growth of your corn. The salt, however, will do more than this—it will, to a considerable extent, act as fixer to the ammonia in the soil as it may be formed, attract moisture from the atmosphere, preserve the corn plants from firing, and furnish no inconsiderable quantity of soda and chlorine for their appropriation.

All *stiff lands* intended for spring culture, should be winter ploughed, to give the frost a chance to soften down and improve their texture; but as we have often repeated before, clays should never be ploughed when they are wet, you must select a time for breaking them up when they are *neither wet nor dry*. If ploughed when wet, they assume the condition of mortar and will defy your skill to reduce them throughout the season.

Poultry.—See that your poultry of all kinds are well fed, and furnished with lime, ashes and sand this month, that their houses are clean and their nests well made with fresh straw. Alternate their food between corn, oats and buckwheat.

Tobacco beds.—See to the preparation of your tobacco beds, and for the management of them we refer you to the admirable essay on the culture of tobacco, from the pen of Col. Bowie, to be found in our December number, p. 184, and to that excellent paper upon the same subject, from the pen of the Hon. Mr. *Jones*, of Fluvanna County, Virginia. In either of the modes of these distinguished gentlemen the planter may rely with confidence, as to practical knowledge and experience they each have the amplest capacity as teachers.

Posts for fencing.—As these are becoming scarce, we think it would be judicious for farmers to sow a few pounds of yellow locust seed in March or April to grow plants to set out a locust grove. The best way to prepare the seed, which should be of last season's growth, is to pour boiling water over them and leave them to soak for forty eight hours or more, when the water should be drained off and the seed mixed with ashes, soot, lime or plaster. The soil to grow the scions in should be a deep sandy loam. It should be well manured, deeply ploughed and thoroughly harrowed. Drills 4 feet apart 2 inches deep should he made, the seed dropped or drilled in thinly and covered over, and the ground rolled over the drills. The plants must be kept clean from the time they come up until weeds cease to start in autumn. They may be set out where they are intended to remain at from 1 to 2 years old, and will be fit for posts in 12 years. If set 10 or 12 feet apart each way, the trees will have room enough to grow into good timber, and cannot fail to reward the grower.

Implements of husbandry, tools, carts, &c.—Are all these in good order? If not have them put so without delay. See to this yourself, and you will be sure that the necessary repairs are made.

Have you such a stock of them as will enable you pleasantly and profitably to carry on the operations of the farm. If not procure all you may need, and get the best, we always found the *best* the cheapest in the end.

Apple orchards and Fruit generally.—If you have an orchard of good apples on your farm, you of course have no occasion to plant out a new one; but if you are without one, make immediate preparations to set out an orchard as soon next month as the frost is out of the ground, and while buying your trees be sure to get an assortment of the best kinds of apples for cooking, for eating and for cider and vinegar. While purchasing apple trees, if you are not already supplied, procure an assortment of pears, peaches, quinces, plums, &c., as every farmer should have enough trees of such fruit on his place to supply the wants of his family in a measure of fullness. We go for comforts and luxuries as well as necessaries, and especially do we, when those luxuries are as conducive to health as are good well ripened luscious fruits. We have ever thought that man, next to the payment of the obligations which he owes his creator, should consider it his duty to make those around him comfortable and happy.

Milch cows.—February and March are, generally speaking, severe and trying months upon these creatures; they should, therefore, receive additional care, attention, and food. He that has corn cobs, by crushing them, putting them into a tight barrel or hogshead, pouring boiling water over them and covering them tightly up, can always have food at hand, for by the time the crushed cobs are cool they will be sufficiently cooked to be fed out, a peck at a meal to each cow, in addition to her long provender. He that has no cobs should give to each of his milch cows, morning and night a mash of cut straw or hay, and meal or bran, made up with boiling water and fed when cool—this to be additional to the long fodder, hay or straw usually fed to them. These messes are most palatable when salted, a handful of salt to a mess. If neither of these kinds of feed be at hand, a peck of roots with cut hay or straw will make an excellent substitute. But if you should say you have no roots, our reply would be—you should have raised them, as no one can reasonably expect his cows to give good pails of milk unless he provides them with suitable food to manufacture it out of.

In calf heifers and cows.—Let these be attended to in the same way recommended for milch cows

Working horses, mules and oxen.—Every possible attention should be paid to these, they should receive good food, plenty of it, be stabled, warmly bedded, well cleaned and regularly watered three times a day.

Breeding sows, and sheep.—See that these are well cared for.

Young stock.—Give to these a feed of grain each morning and evening in addition to their long provender; oats is the best, as that has more of the bone and muscle material in it than corn. It is not necessary that these grain feeds should be large, but if you wish your young stock to develop bone and muscle you must give them something to make it out of. We never had any faith in merely keeping skin and bones together; many a horse and many cattle have thus been cheated out of one third of their "fair proportions."

Salting stock.—All stock should receive, *each*, thrice a week an ounce of salt, or an ounce of the following mixture—equal parts of ashes, salt, and lime. Hogs should also be salted, and have salt charcoal and ashes given them three times a week. For stock of all kinds we prefer oyster shell lime, for the simple reason that every well conducted analysis found bone earth in it, and that is necessary to carry on the wear and tear and elaborations of the bone.

Sowing clover seed.—Every farmer who has a field in wheat should seize the first opportunity of favorable weather, to sow 12 pounds of clover seed on every acre of it. One practice is to sow it on the snow, when a bed of it may be found light enough to enable the seed to find its way, by its own specific gravity, to the earth. We apprehend, however, that this plan is liable to great loss from birds, the which when pressed by hunger, consequent upon the snowy covering of the earth, necessarily consume much of the seed, which may account, in part, for many fields being so thinly set, and so many outeries against the quality of seed. We believe it would be better to wait until the frost is entirely out of the ground, and then sow the seed and roll it in. We have gone farther than this, and with good results. We have, after sowing clover seed on the young wheat passed a light harrow over the field, and followed that with a roller. By this process, no possible injury need be apprehended to the wheat plants, many of them are, doubtless dragged out by the harrow, but they are returned again by the rol-

ler, which also compresses innumerable joints into the soil, which take root, and thus is the chance of tillering greatly augmented and the stand of wheat increased. Besides which, the operation acts as a working and impels forward the growth of the plants. Winter killed wheat we believe would be greatly benefitted by the latter treatment.

Oats.—It is too soon to put this crop in in this State or north or east of it; but as our journal has a wide circulation in the South, we deem it our duty to state, that so soon as the frost is out of the ground, is the proper time to sow oats, and we will here remark, that a good crop cannot be expected to be grown upon poor worn-out lands, whose mineral, animal and vegetable substances have been exhausted by a long continuous series of improvident culture; and unfortunately for the character of this crop, it is mostly upon such soils that its culture is attempted, and hence the small products. Whereas, wherever this crop is grown upon lands of only moderate fertility, under favorable circumstances of seeding and seasons, it scarcely ever fails to yield a highly remunerating crop. We have known 2400 bushels to be taken off of a 40 acre field; but that field was in good heart, had been limed and ashed, and a clover-ley had been turned under to give place to the oats. The poorest field might, with 400 pounds of guano, or 10 bushels of bone earth, be made to yield 40 bushels to the acre—and we should think that a good dressing of marl, would after the first year, do as well, if aided by a moderate dressing of nutritive manures. One bushel of Plaster and two of salt per acre, if sown broadcast, will ensure a very fair yield of oats, a yield very far beyond what the land unassisted would produce, and if to the plaster and salt, 5 bushels of ashes per acre, be superadded, the product will be improved as well in quantity as in quality. A dressing of 10 double horse cart loads of marsh mud and 5 bushels of lime, made into compost, will also greatly enhance the yield of grain.

THE CORN AND WHEAT CROPS OF TALBOT COUNTY—TIME OF SOWING.

TALBOT COUNTY, Jan. 8th, 1850.

Editor of the American Farmer:

DEAR SIR,—It is with no little pleasure that I enclose you the subscription for your monthly journal, for this year. The vast source of Agricultural matter to be derived from its pages—the beautiful compilation of Essays—the pleasing and satisfactory accounts given, and the plans for divisions and enclosures for farms, laid down by practical and scientific culturists and renovators of the soil, render it one of the most interesting and profitable works of the day. Not only should its pages be pleasing to the eye of the farmer, but it should be the object of every one, the merchant, the mechanic, the laborer, that its success be perfect and entire, and its circulation throughout this vast region of territory be as extensive as the winds of heaven; that its light may shine as brilliantly as the bright orb of day, over this home of freemen, our own glorious country.

The farmer is the master wheel of the mechanism of communities—to him they look for that all-important, all-essential sustenance of the machine, the bread of life. He is the grand fountain head, the rich source from whence springeth the very existence of governments, the crowning shield of society—the smiles of happiness, the pleasures of life. With him rests the prosperity, the success of the merchant, the mechanic. It is clearly then to the advantage of even your wealthy tradesmen of the city, who (many of them) think, no doubt, they have little or no interest in the improvement of farming, and are as widely disconnected from that branch of business as the North pole from the South: or if they really are beginning to awaken from their Van Winkle slumber, are still almost as immovable and as stony in heart as the statues that adorn their public walks. I repeat, it is greatly to their advantage that the agricultural journals of the country should be extensively circulated, that their genial sun-shine may nourish every fruitful plan happily conceived, and disseminate every profitable experiment, successfully accomplished; and as you very wisely suggested, protect the unwary husbandman—who, existing as it were under the very tuition of the Author of his being, and possessing but a scanty knowledge of the tarnished character of his fellow-man, can hardly conceive the many snares and gull-traps set for him, even by his own commission merchant, (in some instances) that he deems so high-minded, so perfectly honorable. He is as pure in heart and mind as the happy creatures that spring up around him—but, once sully that temperament and arouse him to the vile trickeries that are practiced upon him, and he is as firm in his decisions as the old oaks of his forest, that have braved the storms of centuries.

In answer to your inquiry in your last number, from your numerous subscribers in various sections of the country, respecting the crops of last year, I for one will briefly state, that in this county it is the opinion that the Corn crop was a general failure. In my own neighborhood, comprising two or three necks of as fine land as any on the shore, and I don't know that I would be boasting to say in the State, but few farmers made more than enough to serve them. The Wheat crop was not so indifferent, though certainly nothing extra; so far from it, I think I may safely assert, it was rather ordinary—the corn-land Wheat generally was below ordinary, or in other words, quite a failure; but our fallows in many instances were good. The attacks of the fly were very severe—with the fallow they were met though, and repulsed with but little damage—but with the poor corn-land, much weaker in ammunition, its ravages were terrible.

It has been a lesson practically and powerfully enforced upon the minds of the farmers of Talbot, that corn-land cannot be depended upon for a crop of wheat, and it is now becoming a universal practice to prepare fallows, and dress them with the richest materials to be had.

The fly has been very severe upon wheat the past fall, seeded tolerably early; a little later seeding has escaped entirely, and stands a much better chance of escaping the terrible scourge in the spring. From this and from previous experience, our farmers are generally confirmed in the opinion that early seeding will not answer as a general rule, and your humble correspondent entirely coincides with them. It is very true that in some seasons early seeding would do well: in truth, would be the better for the plant; but at the same time we must not be blind to the fact, that we cannot divine the season, we cannot tell what the "to-morrow may bring forth," and we have concluded that a medium time is preferable—a little before or after the 1st of October, if the ground will permit. We set about it with a zeal—we bring every thing

suitable into requisition: our treble, double, single ploughs; and by the time our grandfathers, in ages past, would have had a cut in, we have a field in—and as far surpassing their mode of putting in wheat, as the smoothing plane surpasses the jack. It is all thoroughly hinge-harrowed, rolled if necessary, and water-furrowed in the most perfect manner.

Farmers, I understand, in Queen Anne's and Kent counties who are favorable to early seeding, have fields nearly ruined by the fly. It is our nature, sir, to jump into a thing in too big a hurry, and like the whipped child, ere past stings of the rod have worn off, peril our backs for more.

In your last number you were kind enough to speak favorably of Talbot, her cattle show, her sheep husbandry, &c., and last but not least, her fair daughters. I, as one of her sons, thank you. I feel proud of all her fair daughters! My native Talbot, my native shore! Proud of her bold streams flowing to the sea, and her barks ladened with produce, wafted on their bosoms to the rapidly growing mart of our State. Her gushing rivulets, her beautiful landscapes—her noble forests, blossoming in spring time with the colors of the rose, or fading in autumn with the hues of the rainbow; our homesteads and our lands teeming with plenty, and our people blessed with health, prosperity and happiness.

In addressing you this, I intended to occupy but a small corner in the pages of your invaluable journal, but like the blue waters of my noble namesake, my soul flows still with pleasure in the pursuit of agriculture—and with its swelling waves curling in view and breaking in majestic splendor at my feet, with a sound, mellow and as musical as the notes of the lute, I subscribe myself

Your obliged servant, CHOPTANK.

GUANO ON TOBACCO.

A correspondent, in Caroline Co., Va., having propounded the following queries to us, we requested Mr. *Milburn*, who has had much experience in such matters, to furnish us with answers thereto, to which he has politely responded in the accompanying note:

"Will you have the kindness to inform me, through your paper or otherwise, whether or not tobacco can be successfully raised by using guano in the hill—and if so, how and in what quantity it should be applied? If it is to be mixed with something else, please state the quantity of other ingredients in bushels to the acre, or the quantity to the hill."

BALTIMORE, January 17, 1850.

To the Editor of the American Farmer.

DEAR SIR,—In answer to your correspondent, I would first remark, that the general effect of Guano on the growth of Tobacco, where not controlled by other stimulants, is a quick growth—containing a large quantity of sap and soft vegetable matter—and as the plant ripens and the sap is diminished, the ends of the lower leaves are subject to crisp, while the rest of the plant remains a dark green, and if cut in that state the texture will be harsh, and the color when cured, a red brown, which is very objectionable—and therefore Guano should never be used for Tobacco in large quantities, except in combination with a large quantity of Potash. But it might be used in small quantities in combination with other manures, or alone, on most soils suitable for Tobacco. On new lands, or other soils rich in potash and free from undecomposed vegetable manures, it might be used in large quantities, as the potash would cause a healthy growth and its stimulating quality would exhaust the ammonia in the Guano by the time the plants were grown, when they would yellow and produce a good article; but on soils which are not well supplied with potash in some of its combinations, I should not think it prudent to use over 200 lbs. per acre, and that in a compost of well rotted manure in which potash should be present: which might be added in horse manure, wheat straw, woods soraping or ashes; but the Guano should not be mixed in more than two or three days before the compost is to be used. I have seen large Tobacco of good quality grown on poor old fields, and sedge is not objectionable, by an application of 500 lbs. Guano per acre—such soils generally contain sufficient potash for one crop.

Guano can be used to advantage in the hill; 50 lbs. per acre mixed with 20 bushels rich soil and 5 bushels of ashes and distributed in the hill, would produce a very decided improvement, though I should not expect to obtain a good crop from the application of Guano with less than 200 lbs. per acre, and then the soil ought to be new land or of medium quality. In all cases the Guano should be mixed with the soil, (and when a small quantity is applied) directly under the plant, and if the application is liberal in the hill, so that its early influence may be obtained, so that its active properties may be expended before the plant ripens. I deem it not important to say more at present.

Yours with much respect,

R. N. MILBURN.

SOUTH WESTERN VIRGINIA.

WYTHE COUNTY, Va., January 8, 1850.

To the Editor of the American Farmer.

DEAR SIR—Permit me, in making the enclosed remittance, to add a few remarks in relation to this interior portion of Virginia. You are, doubtless, aware that the State is at present engaged in constructing a McAdamised road from the town of Buchanan, on James river, to the Tennessee line; also that a rail road has been commenced, by a Company (the state being interested), from the town of Lynchburg, on the same river, which is also to be carried to the Tennessee line. The people of Tennessee will extend this latter improvement, probably, to Memphis. These improvements will pass not far from the centre of what is usually termed South Western Virginia. This portion of the State is very uneven on its surface, being divided, by ranges of mountains or ridges, into valleys of various degrees of width.

These valleys constitute the chief portion of arable land; the mountains and hills, though rich in soil, and heavily timbered, offering serious obstructions to the plough, have been permitted, in a great measure, to remain in their primitive condition. The climate and soil are favorable to the production of all the cereal grains. Grass can be produced in any abundance. A denial by nature, as well as art, of an outlet to market, has led the agriculturists of this country into a system of farming at once the most wasteful and extravagant. Horses, cattle and hogs constituted all they could send to market: these were marketed at a heavy expense, some three or four hundred miles distant. Some

attention has, of late, been given to the improvement of our domestic animals; improved breeds of cattle, sheep and hogs have been introduced; a very decided improvement in every respect has been the result, wherever a cross has been made upon the original stock of the country; instead of the *land pike*, may now be seen the Berkshire or Woburn; the Leicester, Cotswold and South Down are taking the place of the long-legged fence jumpers; the splendid short horn will soon be clipping the grass where late an unsightly native was wont to roam.

Nature has placed here, within a limited compass, almost every necessary of life. We have iron, lead, salt, gypsum, lime and coal. In addition to this rich mineral deposit, we have a rich soil, healthy climate, and water in abundance for any and all purposes. Yet, amid all these seeming advantages, we have remained in the back ground; and why? simply for want of an outlet to market. A brighter prospect, however, is beginning to gild our horizon; and we wait impatiently the day when the Iron Horse shall come snorting through the mountain pass, bearing in his train all that we desire from the East, and shall return to your cities and towns laden with the vast riches of our mines, and the not less desirable productions of our fields. We want capital; we want science; we want men of liberal and extended views; and then, and not till then, will the resources of this country be fully developed.

This section of Virginia is, in my opinion, admirably adapted to the production of wool. Sheep require but little attention, being able to gather, without the aid of man, a sufficient quantity of food to sustain them, except at short intervals, when the snow may have covered the earth. The dog is the wool grower's chief enemy. A law for the purpose, properly enforced, would soon remove this difficulty.

The American Farmer is held in high estimation by all who read it here. I would be pleased to see your subscription list increased in our midst. And, although we cannot command, at present, the artificial stimulants you possess for the improvement of our soil, yet we can derive pleasure from learning the success of those who can. Gypsum is the only article in use here; and, indeed, it seems little else is necessary to render our land productive. We use it on clover and every kind of grass that we have, on corn, wheat, oats and flax, and always to advantage. Yours, very respectfully,

CHS. C. TATE.

AS TO THE ACTION OF SALT.

BALTIMORE, January 5th, 1849.

To the Editor of the American Farmer.

MR. EDITOR: You will greatly oblige not only myself, but, perhaps, many other agriculturists and improvers of the soil, if you would favor me with your views upon *salt* as a manure, viz: How is it to be applied? on what crops? the best time to apply it, in what quantity, &c. &c. I made one experiment myself with salt, on oats and clover; but the season was an unpropitious one, and it did not succeed to my satisfaction, though I have great confidence in it, as a fertilizer, if PROPERLY USED. I will give you a short account of my experiments with bones, guano, poudrette, lime, &c., according to my promise, before long.

Yours, &c., ED. REYNOLDS.

REPLIES BY THE EDITOR OF THE AMERICAN FARMER.

We have used salt on *turnips*, at the rate of 2, 4 and 6 bushels per acre, with, as we thought, decidedly good effects. The ground had been well manured, put in a state of fine tilth, and the salt applied when the turnips first came up.

We have applied salt, at the rate of 2 bushels per acre, on *corn*, after the corn came up. The land had been previously heavily manured. On a part of the same lot, where the corn had not been salted, the blades curled up and withered under the influence of a drought, while those on the part where salt had been applied remained perfectly green. We applied the salt to see its effect upon the grub and cut worms: its operation had a double effect, as, while it destroyed the worms, it preserved our fodder from blight. The salt was sown broadcast.

We sowed salt, broadcast, on a field of *oats*, at the rate of 2 bushels to the acre, after the oats came up, to get rid of the worms which had begun their ravages. It had the desired effect: the crop of oats turned out a good one; but whether that was ascribable to the virtues of the salt, we are not prepared to say, as we had previously ploughed in a *moderate* dressing of barn yard manure, and top-dressed with 5 bushels of spent ashes to the acre. It is possible, however, that the salt contributed its share, as it furnished to the oats both chlorine and soda, elements essential to the perfection alike of the grain and straw of the oats; besides which, it is said to be a converter of vegetable matter into the food of plants.

We have used a compost of salt, lime and ashes, 2 bushels of each, on an acre of potatoes, sown broadcast, at the time of the first working. As in the case of the oats, the crop was a good one; but, as the potatoes had been heavily manured in the rows, we are not prepared to say how much credit is due to the mineral compost for the result. In sowing this mixture, we indiscriminately distributed it over the vines, as well as between the rows.

We apprehend that salt would prove an excellent application to all lands beyond the action of the sprays of salt-water courses, and we know it to be excellent to mix with barn yard manures.

Formerly, in England, as much as 30, 40, and even as high as 60 bushels of salt was applied, broadcast, to an acre, after the crop was set; but, more recently, the most approved doses are from 150 to 300 lbs. per acre. It is frequently used, in England, as a top-dressing to pastures, and seldom without producing the best effects.

In speaking of the effects of salt, after enumerating many other things, Sir *John Sinclair* says:

"But the most important circumstance is, the beneficial effects of salt in preventing the mildew. In the course of a most extensive inquiry into the causes of that disease in wheat, and the means of its prevention, it appeared that a farmer in Cornwall was accustomed to manure his turnip land with the refuse salt from the pilchard fishery; and that ground thus treated was never liable to the mildew, though it infested all the neighborhood."

Mr. *Collyns*, of Kenton, Devonshire, England, says:

"An intelligent neighbor, whose farm is almost entirely a light black sand, writes, 'I have found salt to answer my most sanguine expectations for oats, barley, potatoes and turnips, both as to the increased quantity and improved quality of the

crops, of which I can now give ocular demonstrations: my barley and oats, which used to yield me only 15 to 20 bushels per acre, now yield from 40 to 45. My wheat is certainly much improved in quality, but I expected more in quantity. I have had 35 bushels of wheat from an acre dressed with 10 bushels of salt, and, from the same field, last year, after the same quantity of salt, 140 bags of potatoes."

The previous yield of wheat had been only 16 bushels per acre.

We wish our friend to bear this truth in mind, that, though salt is good in its place, that still salt is not every thing. Salt acts best as an adjunct to other manures. Salt mixed with barn yard manures—salt mixed with soot—are excellent applications. Salt applied to land infested with worms, will destroy them, and, as a necessary consequence, the worms will be converted into manure, and made to contribute to the growth instead of the destruction of the crop.

INQUIRIES CONCERNING THE ACTION OF GUANO.

To the Editor of the American Farmer.

Will you or some of your correspondents be so good as to answer the following queries:

1. What effect will guano have on wheat on land that will make 15 or 20 bushels per acre without it?

2. What effect will guano have on wheat when the land has been recently manured?

3. What effect will 100 pounds of guano per acre, put in the hill, have on corn where the land is manured, broadcast, with stable manure?

4. What is the cost of 1 inch gutta percha pipe? what length is it made? is it easily joined together? does it answer well for water pipe?

We answer the above questions in the order in which they are put, thus:

1. Land that will now bring from 15 to 20 bushels of wheat to the acre, if Guano were applied to it, ought to bring from 30 to 35 bushels; but this can only be expected where the land is put in first rate order, by truthful ploughing and thorough pulverization.

2. Guano applied to lands recently manured, could but act to increase their yield; but if those lands have been *well manured*, we can see no propriety in applying guano at present. We are opposed to farmers incurring unnecessary expense. It would be better to let such land go through its course of rotation, ending with clover.

3. The application of 100 lbs. of guano per acre, in the hill, to corn, on lands manured broadcast, would act as other nutritive and mineral manures do, applied in the hill. It would serve to accelerate the growth of the plants at the onset, and act advantageously, so long as the feeders of the plants were within the reach of the food presented for their consumption. Such topical applications are always salutary, where they are combined with broadcast or general applications of manure, as they serve to give an impetus to the growth of the plants at the beginning, encourage the elaboration of the rootlets, and push them on until they reach the manure in mid furrow, and thus secure a continuous and luxuriant growth of the plants.

4. We have no knowledge of the cost of gutta percha pipes; nor have we any personal knowledge of how they answer. If any of our readers possess his information, we would esteem it as a favor if they would furnish it to us, for publication, as we feel solicitous to gratify our respected correspondent.

MR. DUCKETTS CORN.

In Dec., we noticed the reception of four stalks of Corn, of extraordinary size, from the farm of J. M. Duckett, Esq of Baltimore Co. and expressed the wish that Mr. D. would furnish us with some further particulars—to which he has politely responded in the following note. The ears to which he alludes can be seen at the hall of the Society.

TIVOLI, Baltimore county, Dec. 10, 1846.

To the Editor of the American Farmer.

Dear Sir,—In noticing the complimental remark passed on my farming in the last number of your very valuable paper, growing out of the four stalks of corn deposited in the room of the Agricultural Society of the State of Maryland, and which was taken from one of my fields the past season, I find you desire that I should say something as to the product of the whole field, cultivation, &c. The corn in question was shown me about ten months since, by the miller who does my grinding in the neighborhood. He informed me that it was sent to his mill in the ear state, to be ground with the cob. I was struck with its appearance as a beautiful sample of the white kind, its cob remarkably small, grain perfect, pearl white, and a mixture of the flint and indented species. I traced it to its parent earth, and found it had grown on very poor ground, which accounted for its very small ears I thought. I obtained some four or five bushels which I planted on a timothy sod of eight years cut, located on a hill side, an angle of thirty odd degrees, which was ploughed up and boned, this last spring with thirty bushels to the acre, and planted four and a half feet by three feet, two stocks in the hill. Its produce, when gathered, I found to be much improved in quality, and yielding fourteen barrels to the acre, which, when compared with another field more highly cultivated, and much better located, and planted with the very best kind of the yellow corn, I found to outyield it by half a barrel to the acre, both fields being accurately surveyed and their product correctly measured. Its producer informed me that it was very prolific, growing three good ears to a stock a common occurrence, and sometimes four, which I found the case. The sample in question was not a fair one to test the yield of corn to the acre—my object there being to obtain the greatest number of ears on the tallest stocks. Several of my neighbors—good farmers—have examined it, and pronounce it good corn. I send you a sample from the cribs; also, some of the cobs, which will show for itself as much as any other comments I can make on it thus far, as I do not as yet know its weight to the bushel, although heavy; or its yield of shelled corn to the bushel, two very great essentials in my opinion in forming a perfect corn. Very respectfully,

JUNSON M. DUCKETT.

THE WHEAT CROP.—A letter to the editor from Westmoreland Co. Va. says:

"We have had so far a very unpleasant winter. Very little farm work has been done. The earth is now covered with snow, and has been saturated with water for two or three months. The farmers on low lands begin to fear for their wheat, which does not generally look well. My own on well drained land, manured, especially with Peruvian guano, looks well."

CANADIAN LYNX, OR WILD CAT, IN MARYLAND.

WEST RIVER, A. A. Co., Dec. 15, 1849.

To the Editor of the American Farmer.

SIR:—In the early part of this month, a wild animal was killed in this neighborhood, on the farm of Mr. A. C. Gibbs, by one of his negroes, while coon-hunting at night. He discovered this animal in a tree, and supposing him to be a raccoon, ascended the tree after him, and succeeded in shaking him off, when he was immediately attacked by the dogs, one of which he killed by a gentle tap of his huge paw.

This animal is undoubtedly the *Canadian Lynx*, or the *Loup-Arvier* of the French; or the *big Grey Wild Cat* or *Wolverine* of the New York hunters. He is of a deep grey color, with darkish spots, ears triangular, tufted and short tail tipped with black, buff round the neck, white in front, approaching to black behind; stood high on his legs, and measured thirty-two inches from the root of the tail to the nose. I have not attempted to describe the animal minutely nor scientifically, but I think there is no difficulty in identifying him. He was a perfect stranger in this country, his like not having been seen by any of the present inhabitants; as his habitual range is between forty-three and sixty-six degrees north latitude, there has been much speculation as to how he came here, some supposing that he had escaped from a *menagerie*, and others that he was lost and wandered from his home, making journeys at night, and concealing himself by day in the woods. Its ordinary food consists of horses, lambs, pigs, &c., but I have not heard that it had committed any depredations. His advent is regarded as an omen of a hard winter.

Your ob't serv't. GEO. W. HUGHES.

ESTIMATED VALUE OF URINE AS A MANURE.

Professor *Rodgers*, in his excellent work on "Scientific Agriculture," has the following estimate of the value of urine as a manure, which we believe to be a very near approximation to the truth.

"If we allow the quantity of *urine* voided by each individual to be 600 pounds yearly, the city of Rochester, which contains 20,000 inhabitants, would furnish yearly about 240 tons. This estimate at the price of guano would be worth $21,600. Now if we estimate the number of horses and cows of the city to 500 each, and that each animal voids as much urine as two persons, the amount would be 80,000 pounds, or 40 tons, which would be worth $1,600. Here there is a loss, if we reckon guano at $40 per ton, of $23,200, or of manure enough to produce, in addition to the ordinary crop, over 16,000 bushels of wheat in a single year."

Economic management of urine.—"Decomposition is attended with a diminution of urea, and an increase of ammonia. It is important that the urine collected should be fermented in tightly covered cisterns to prevent the escape of volatile matters: it has been proposed to add *gypsum*, sulphate of iron, or sulphuric acid, to the fermenting urine, in order to fix the ammonia; the mixture of vegetable mould with it has been also recommended as equally effective and more economical."

Marsh mud, and charcoal, or peat, would be equally serviceable as a fixer of the volatile gases of the urine. If the estimate of Professor Rodgers be correct, then, as Baltimore has a population of 150,000, and it is to be presumed that the number of her cows and horses are correspondingly as large as are those of Rochester, there is enough of the above liquid voided within her limits to produce 120,000 bushels of wheat; and carrying this calculation still farther—extending it to the population of the United States, say 20,000,000, if we assume the number of cows and horses as relatively great, then we have, in this article, the elements of the manure necessary to produce 16 millions of bushels of wheat. And yet scarcely any of it is appropriated to such production, though Providence, in his wise dispensation, doubtless intended that nothing should be lost that could be converted into the uses of man.

VALUE OF BONE DUST.—In speaking of the value of bone dust as a manure, Professor Gray says, that "one bushel to a load of yard manure increases its value, as determined by experiment, one-half." He estimates that it is "8 or 10 times as valuable as cow dung, and the quantity of salts is 66 times that contained in an equal quantity of that substance."

SOOT.—In reply to a question, we answer, that we do consider soot an efficient manure, and that we believe that 20 bushels of soot, if treated to, and mixed with, a bushel of plaster, would be sufficient to manure and fertilize an acre of ground, so that it would produce a good crop of almost any of the cultivable plants. Unfortunately, however, the sources of supply are so limited, except in large cities, and there it is so seldom saved, that but little if any reliance is to be placed upon it as an available resource of fertilization.

Analysis shows that 100 parts of soot contain, of

Vegetable matter	30.70
Extractive matter and nitrogen	20.00
Carb. of lime and traces of Magnesia	14.66
Acetate of Lime	5.65
Sulphate of lime	5.00
Phosph. of lime and iron	1.50
Acetate of Potash	4.10
Muriate of Potash	.36
Acetate of ammonia	.20
Acetate of magnesia	.53
Silex	.95
Carbon	3.85
Water	12.00
	99.50

By the above it will be seen that soot is richer, very far richer than cow dung—in salts as 20 to 1, and in the elements convertible into ammonia, as 40 to 1, and, therefore, does it exceed that manure in its virtues in that ratio. The best method of using it, in our opinion, would be to sow it broadcast and plough it in. Thus managed, we have no doubt it would be a valuable fertilizer, and that its permanency would be increased by being ploughed in. But as we have before premised, it is not to be had in sufficient quantities, owing to the fact of its being thrown away as gathered in the large cities, to render it an object of importance. To show its power and efficiency, we will state, that 3 gallons of soot mixed with 100 gallons of water, would make a decoction sufficiently strong to produce a very evident effect upon any plants that might be watered with it.

AMERICAN FARMER

BALTIMORE, FEBRUARY 1, 1850.

TERMS OF THE AMERICAN FARMER.

$1 per annum, in advance; 6 copies for $5; 12 copies for $10; 30 copies for $20.

ADVERTISEMENTS inserted at $1 per square of 12 lines, for each insertion. In case of the continuance of an advertisement for six months or longer, a liberal deduction will be made.

Address, SAMUEL SANDS, Publisher,
At the *State Agricultural Society Rooms*, No. 128 Baltimore st. over the "American Office," 5th door from North-st.

MARYLAND STATE AGRICULTURAL SOCIETY.

The quarterly meeting, it will be borne in mind takes place on Wednesday next, the 6th inst. at the Rooms of the Society.

The charter for the Society, presented in the Senate by Mr. Cary, has passed that body.

A memorial which emenated from a committee of this Society, at their meeting in Washington, in January, has been presented to the Senate of the U. S. by Mr. Pearce, of this State, in behalf of the Agricultural Interests. The same committee also adopted an address or appeal to the farmers of the Middle States in favor of the holding general conventions, annually, at the city of Baltimore. We hope to obtain copies of these papers for our next No.

TO CORRESPONDENTS.—"*Patuxent Planter*" is received—we regret the lateness of the hour at which it came to hand, treating as it does upon subjects coming directly before the Legislature—our pages moreover, were already filled.

"R," on the Bartlett double Plough, is crowded out—as is also "B" of Appomatox, Va., on the rotation of crops—and S. Weller on Vine Culture—the publication of which we reluctantly defer until our next.

"*Vindex*" on the use of lime, must share the same fate—as also must a novel proposition from *D. Clagett*, Esq. of Dis't Col. for a premium for the best 25 potatoes of next crop, &c.

In addition, we omit replies to sundry queries relative to diseases of cattle, sheep, &c.

In our next we expect to publish the Prize Essay on Farm-buildings, the premium for which will be awarded at the meeting of the State Society, on Wednesday next, 6th inst.

PROFITS OF FARMING.—The communication of the Hon. *Willoughby Newton*, upon the profitable results of his farming, on one of his estates in Westmoreland county, Virginia, will elicit attention on more accounts than one. It shows that farming, as an occupation, when pursued upon the principles of enlightened improvement, is a highly lucrative one—that he made an *average* profit, in 4 years, *of* 10 83-100 per cent., a rate of profit that should satisfy any capitalist for the use of his money—a rate of profit which but seldom enures to those engaged in commercial pursuits, when they come to make out their *balance sheets*, after life times of toil and vexation. It shows, too, what an enterprising, improving farmer may do, with a small outlay of money, in restoring worn-out lands, by the aid "of *deep ploughing* (using the subsoil plough), *liming*, *clovering*, and *manuring* with the offal of the crops."

Thanking our excellent and distinguished friend for his very interesting paper, we hope the example which he and Mr. Ruffin have set, in placing agriculture and its gratifying results in bold relief before the American public, will be followed by others, in order that the judgments of men may be impressed with the belief that well directed rural labors are as fruitful of rewards as are any other occupation of man.

TOBACCO CULTURE.—The essay in this month's journal, upon this subject, will attract attention. It is written by a gentleman of great experience as a planter, who has long been distinguished as one of the most successful tobacco growers in our State, and equally distinguished for his indomitable perseverance, correct judgment and close observation. His division of his subjects under appropriate heads will be found of infinite service in directing the mind to particular points of the culture. We feel assured that his paper will be read and admired by every planter of the weed that our paper may reach; and we are equally assured that none will peruse it without profit.

THE AMERICAN POULTRY YARD.—Mr. *C. M. Saxton*, 121 Fulton street, New York, has just issued a work bearing the above title. It is edited by *D. J. Browne*, Esq., author of *Sylva Americana*. The volume comprises 322 octavo pages, and treats upon subjects connected with "the origin, history and description of the different breeds of domestic poultry: contains complete directions for their breeding, crossing, rearing, fattening and preparation for market; including specific directions for caponizing fowls, and for the treatment of the principal diseases to which they are subject; drawn from authentic sources and personal observation," and embraces, also, an appendix, in which there is an essay descriptive of the comparative merits of different breeds of fowls.

The work is printed on beautiful paper, with a fine bold type, and fine illustrations, and gotten up in that elegant style for which Mr. Saxton has long been distinguished; but, independent of its appearance, it contains matter to interest and instruct upon almost every thing that concerns the poultry yard, and bears the impress in its pages, that its editor was well qualified to fulfil the task he undertook, and which he has accomplished with fidelity and talent. [The price of the work is $1, bound, and can be obtained at the office of the "Farmer."]

PROTECTION TO SHEEP.—We call especial attention to the *memorial* to the General Assembly of Maryland, which will be found in another part of this month's journal, on the subject of protection to sheep from dogs. The memorialists ask nothing but what every thinking man in the State will concede to be just. They ask that the number of useless dogs may be reduced; and they seek this reduction through the medium of a tax to be imposed upon them. This plan, we apprehend, will induce all owners to destroy all such dogs as may not be indispensably necessary for farm purposes, in order to save themselves from the tax prayed for. As the memorial is drawn up with ability, and begs

upon its face the strong evidences of care and research, we commend it to the favorable consideration of the members of our Legislature, and trust that, as its prayer is reasonable, just, and called for by the agricultural interests, it may be granted.

The destruction of sheep by worthless curs is a grievous evil, which should be speedily remedied. A correspondent from Harford suggests that the Board having charge of taking the next census should have the number of dogs, as well as sheep, enumerated, and ventures the opinion that the former will exceed the latter. His suggestion is a good one; and should his *opinion* be even an approximation to a well grounded one, the fact will go far to show that legislation is needed to prune off a very large portion of the canine race.

BEEF CATTLE.—At a meeting of the feeders and drovers of the Sciota Valley, held at Circleville, Ohio, on 6th ult., it was resolved to change the system of selling cattle in the New York market, by selling for *cash* only; and they further resolved to endeavor to procure a change in the location of the drove yard in the city of New York, from the eastern to the south side of the city, and to change the sale day from Monday to Thursday. These changes, they say, will effect a saving of $3 per head on every bullock fed in the valley and driven to that market.

A corresponding committee was appointed to confer with the Kentucky and other Western drovers, and to solicit their co-operation in the attainment of the objects set forth above.

THE PAPER ON THE WHEAT CROP.—The able instructive paper on the Wheat crop of the U. S. published in our last, from the pen of Mr. Holcomb, has attracted much attention, and elicited the warmest encomiums from various quarters—A letter to the editor, from Culpepper Co. Va. remarks:

"I have received the January number and found it a valuable paper. The address of the Hon. Chauncey P. Holcomb is a very able and interesting one, and worth much more than a whole year's subscription. He gives us a good deal of new matter upon the "wheat crop of the U. S.," and shows, I think, very satisfactorily, that Maryland and Virginia have great advantage in regard to the wheat crop."

An error occurred in the printing of the paper of Mr. Holcomb, which it is important should be corrected—Instead of "twenty" degrees of longitude, it should have read *twelve*.

AGRICULTURAL EDUCATION.—Dr. White, of Montgomery has introduced into the House of Delegates of Maryland, a proposition to inquire into the expediency of requiring the several academies of the State, which receive aid from the public treasury, to provide for instruction in geology and agricultural chemistry. We are glad to see this movement made—it is beginning at the proper point to secure a general knowledge of those sciences, so all-important to the permanent success of the efforts now making to resuscitate our old worn out lands—and to continue in fertility those now in good tilth. Mr. Cary in his address before the State Agricultural Society, at its first exhibition, took the ground of the necessity of a *professional education* for the future farmers of this State—that this was to be secured by the introduction of those sciences necessary for their pursuit, into our colleges and seminaries—and it can only be accomplished in the manner thus indicated—as we before observed, by beginning with the youth of our State. It is the hardest thing imaginable to induce those who have had opportunities of obtaining but a limited education, to undertake after arriving at the age of manhood, to master what is generally looked upon as an abstruse science—but the lad, who enters our primary schools and academies, will lay hold of the subject, and in a little while it will be found no more difficult to learn, than his multiplication table.

Michigan Farmer.—This sterling agricultural journal, published at Detroit, Michigan, was, on the 1st of January, changed from a semi-monthly to a monthly periodical. It is edited by *Warren Isham*, Esquire, with industry, taste, judgment and talents. Besides the original editorial matter, which is always written with spirit, its columns are well filled with able original and selected articles. On new-year's day it was to come out in a new and improved dress, and we sincerely trust that this renewed effort to render his excellent paper the more acceptable, will stimulate his patrons to action, and thus secure an enlarged circulation; for we are very sure they could not do a more acceptable service to the State, as a vehicle so competent to diffuse useful practical, as well as scientific knowledge, must, in the same ratio as its sphere of usefulness may be increased, augment and give form to those elements which impart strength to communities.

VADE MECUM FOR PRACTICAL ORNITHOLOGISTS.

Dr. *J. C. Bennett*, of Plymouth, Mass., has in the press, a work which will treat upon the different breeds of domestic poultry, their comparative merits, all economical facts respecting the value and productiveness of such stock, together with their *diseases* and cures. Dr. B. is an enthusiastic and practical breeder, and well qualified by education and experience to make his contemplated work one of interest and utility. We shall look forward to its publication as being calculated to throw much light upon this branch of farm management, as from having read a series of highly valuable essays from his pen in the Boston Cultivator, we feel assured that he has the ability to treat the various matters which will be contained in the forthcoming book with intelligence and skill, and make it what such a work ought to be—an instructive guide to the raisers of poultry.

SOUTH CAROLINA.—Our subscription list has much increased in this State, of late. A letter from a physician of Charleston, to the editor, suggesting the establishment of an agency in that city, adds:

"Accident placed in my hands, a few days since, a late No. of the American Farmer. I am so well pleased with the character of the work, as illustrated by that number, that I regret I did not sooner become acquainted with its value, and now enclose my subscription for the current volume, and request you to send me the numbers through the mail. Its circulation here may be increased by an agency."

FLOWERS AND SEED.—We refer our readers to the advertisement of Mr. Feast. We can confidently recommend him to those wishing to obtain flower or garden seeds, or plants.

SHEEP HUSBANDRY—WIRE FENCE.—A letter to the editor, from the author of the essay on Sheep Husbandry, who resides near Wheeling, Va., gives the following gratifying result of his success. The promised paper on the subject of the wire fence, at our request has since been furnished, and will appear in our next:

"I began the winter with 1,200 head—many of them older than I usually retain in my flocks, but kept this season as breeders to increase my number; and I have as yet had but one death, and that by accident.

"I have been putting up a wire fence, and am so well pleased with it, that I shall adopt it for all my inside enclosures hereafter, though my estate furnishes timber of every description, in abundance, and of fine quality; and the cost of putting up ordinary fences is at least as cheap as with you; it greatly exceeds that of wire, while at the same time it is more subject to decay, requires frequent repair, and is, at best, an unsightly object, when compared with the light, but equally, if not more, protective enclosure afforded by wire. I have never seen an animal attempt to break through mine. They graze close up to it, but it appears to have on them the effect of a magic line, which they do not even venture to step over. Mine is pretty much the work of my own hands, with the exception of getting out the posts, and setting them; so I can give you, hereafter, if you require it, instructions for overcoming the few difficulties I found in its construction, being to make the starting and terminating points immovable, and to draw the wires tight; both of which I have accomplished by a very simple contrivance."

THE CROPS.—We copy the following from the Prairie (Ill.) Farmer, for January:

The crops throughout the western country have fared quite differently. The wheat crop, which is one of the great staples of the Northwest, gave promise, in early summer of bounteous yields. But little of winter wheat had been sown, owing to continued losses. That little never wintered better, or promised more munificently, till the middle of June. Fields, at that time, were promising 20, 25, 30, 35, and 40 bushels per acre. The promise, also, of the spring crop was good; a very large extent of which had been sown. But it was discovered, as the harvest approached, that a general blight affected the whole crop, more or less, and no grain, or comparatively little, had been formed. It was attributed to the extreme heat of the weather, at the time when the berry was forming. In the south of the state of Illinois, and in corresponding latitudes, the crop was too far advanced to be affected, and a fine crop was gathered. In the north the spring wheat was not sufficiently advanced to be destroyed, and a partial crop of that variety of grain was harvested. But of the winter grain much was left uncut, or merely cut for fodder for stock. Of the spring wheat the hopes were still for a fair yield, but the threshing has again disappointed the farmer. So that fields which promised 20 to 30 bushels per acre scarcely yield five to ten.

There was, nevertheless, a good amount of old wheat unmarketed, in the country—the result of low prices, wet season, and the cholera. The market season, during the past fine autumn, has therefore, been briskly improved.

The corn crop has proved on the whole, a fair yield. In the northern sections of the Northwest it was very backward, and the fear was that an early frost would destroy it. Slight frosts were experienced about the first of October; but in this city the pumpkin vines were not destroyed till near November; and after that, such has been the mildness of the weather out-door blossoms have been out until the 25th of November. We saw a beautiful exhibition of out-door dahlias on the 18th of November. We conclude, therefore, that generally speaking, the corn crop has been ripened, and if so, a good yield has been gathered.

Potatoes have had a comparatively prosperous season. Their old malady has shown itself in many localities: but its destructions have been local, and comparatively unimportant so far as we can hear, with the exception of parts of Iowa, where it has been very severe. Throughout the whole of this country and Europe the same truth holds, and the prospect is fairer for a riddance from this plague than for many years

The grass and hay crops, which are assuming a great importance in the Northwest, have been almost uniformly good. The early season was genial and sufficiently wet for these crops.

CHARRING BUT-ENDS OF POSTS.

We take occasion as the spring will be upon us in a month from this, and fences will have to be constructed and repaired, to commend to the favor of our agricultural friends, the practice of *charring* the *but-ends* of posts, before inserting them in the ground. We advise that the but-ends of posts be charred sufficiently far to leave about *four* inches of the part so treated above ground. That the durability of posts, thus prepared, will be greatly prolonged we have not the slightest doubt—nay we believe that it will make one post last as long as three would, that had been planted without such previous preparation, and that *any wood* susceptible of being wrought into posts, can by this process, be rendered comparatively durable. Our reasons for this opinion are these. 1. Charcoal being indestructible, is not liable to be acted upon disadvantageously by heat and moisture, those active agents in the process of decay: 2. Charcoal though possessing great affinity for moisture, is a bad conductor of heat, and therefore, it is not to be presumed, that it would in this connection, exert an injurious office upon the interior of the wood beyond the charred part, because the necessary degree of heat and moisture, to excite and carry on decomposition would not be present: and 3. Because the very process of charring the but-end, would expel a considerable quantity of water or sap in the body of the posts, and thus relieve them in a great degree, of the presence of the agent by which rottenness, when operated upon by heat, is most generally brought about. Therefore, if you deprive the post of the cause of decay, as a consequence, you must assure its preservation through a very great length of time.

A subscriber in King and Queen Co. Va., asks us to furnish a drawing of a machine for raising marl from pits—As we have no knowledge of the proper kind of apparatus for this purpose, we should esteem it as a favor if some of our Eastern Shore of Maryland and lower Virginia friends would furnish us with a drawing and description of the most approved plan for raising marl.

AGRICULTURAL CONVERSATION—IMPROVEMENT OF AN OLD FIELD.—"My father in law wished to add ten acres to his arable land, and proposed cutting down and grubbing that number of acres of his woodland; but as he had about 10 acres in an old field that had been exhausted and thrown out of culture many years, and which was partially grown up with bushes, I persuaded him to grub up those bushes, so as to save his woodland, timber being scarce in the neighborhood, and he took my advice."

"What did he do with the bushes when he burnt them?"

"He burnt them in piles on the ground, and spread the ashes as far as it would go; but I am a little in the advance of my story. After grubbing he ploughed the ground, so as to get up all the smaller roots, which he piled up with the bushes, suffered them to remain long enough to dry, when they were all burnt together with the bushes."

"What course did he pursue then."

"Why he spread 8 bushels of bone dust on each acre, having enclosed it in the mean time, ploughed it in, and sowed it in Buckwheat, the growth of which surprised everybody—it over-topped the fence."

"What was its yield of grain."

"It turned out the heaviest crop of grain of the kind, which was ever recollected to have been grown in the neighborhood."

"What was the character of the soil."

"It was clay, with a very small portion of sand, the subsoil a stiff clay."

"What did your father in law next do with his old field."

"Without any other manure than the bone dust, which he had applied as I have before stated, the next spring he ploughed up the old field and seeded it in oats and made a very heavy crop."

"Did he sow clover with the oats."

"No, but the next spring, the past one, he manured the old field with 400 pounds of Guano to the acre, ploughed it in, and planted it in corn, and raised 14 barrels to the acre. He used the cultivator and hoe in the cultivation of the corn, so as to preserve as flat a surface as possible. At the last working of the corn, he sowed timothy and clover seed, and his old field is now set with as luxuriant a crop of clover and timothy as I ever recollect to have seen."

"Your father in law does not appear to have used any lime, does he not mean to do so, and if so, when?"

"He means to apply lime this coming spring, at the rate of 100 bushels to the acre, believing that the soil has been permanently restored to fertility, and that it is able to stand that quantity of lime to the acre."

The above is substantially a conversation which we heard between a Harford county farmer, and an acquaintance of his, residing in Baltimore, who had been up in his neighborhood on business; and as there are thousands of old fields in the Union now lying waste, equally susceptible of improvement, we thought we could not do a better service to our readers than to detail the conversation in the order in which it occurred—and shall conclude, by saying to every one who has a worn-out field similarly situated—*Go thou and do likewise.*

"*The Naturalist*," No. 1, published in Tennessee, is received, and will be more particularly noticed hereafter.

MANURING ORCHARDS.—Those who have orchards declining in their bearing properties may, in all probability restore them by a proper course of manuring. Those who have *marsh mud* and *marl* on their farms, by mixing thoroughly together 10 loads of the former with one hundred bushels of the latter and 10 loads of barn yard manure, will be very certain of giving to their trees what they need, what they are languishing for, and what will restore them to fruitfulness.

If they have not these materials—10 loads of woods mould and 10 loads of barn yard manure will answer—these ingredients are to be mixed together, ploughed in; the ground then to be harrowed, when 50 bushels of lime should be spread over the surface.

Ten loads of peat mixed with 100 bushels of lime, which should be suffered to remain in pile for 6 8 or 12 weeks, and then mixed with *ten* loads of barn-yard manure, and one bushel of plaster, will make an excellent dressing for an acre of land in orchard—to be ploughed in.

Twenty loads of barn yard manure, 10 bushels of bone earth, and twenty bushels of ashes, will make an excellent compost for the purpose. These bodies should be well mixed together and ploughed in.

Orchards should be manured at least once in four years with nutritive manures, and limed over in fourteen. All *dead* limbs should be carefully cut off, the wound made smooth, and dressed with some substance to preserve it from the weather and ensure its healing. Equal parts of cow dung, clay and old mortar powdered fine, make an excellent mixture for the purpose. It should be made into the consistency of mortar with water, and then put on and bound round with strong paper.

The *ploughing* in an orchard should be so graduated, as to depth, as *not* to lacerate and wound the roots.

If the *bark* of the body of the trees present a deadened appearance, or are covered with moss, they should be scraped and receive a painting with a mixture of soft soap, sulphur and salt. Proportions—1 gallon soap, 1 lb. sulphur, 1 quart salt.

Corn or root crops may advantageously be grown in orchards, but we doubt the propriety of growing grass or small grain crops therein.

CHEAP CROP OF SWEET-POTATOES.—The Southern Cultivator contains a statement of Aaron Adkins, who raised three hundred and seven bushels of sweet potatoes—excellent food for cows in the South—on an acre of land at the cost of about ten dollars, or about three cents per bushel. The potatoes, cut three inches long, were dropped into deep furrows three and a half feet apart in the furrow. They were covered with a plow; not hilled, nor hoed, but repeatedly cultivated with a shovel-plow, throwing the vines, when they became long, on one side, for one furrow, and on the other side for the next furrow. A small plow was used near the rows, and a larger one in the middle. They were plowed up out of the ground when harvested.

AGRICULTURAL CONVENTION IN VIRGINIA.—It is proposed to hold a meeting of the farmers of Virginia, at Richmond, on Wednesday, February 20th, with a view to the organization of a State Agricultural Society.

WET LANDS AND LIME.—Of this the owner of wet lands may rest assured, that if he desires to derive essential benefit to his lands from the application of lime, he must first drain such as may be wet, of all superabundance of water. Such lands as sustain water upon their surface, or which remain so wet on and through the surface soil, as to be incapable of being ploughed except in a condition of mortar, are but little if any benefited by applications of lime, because instead of becoming intimately mixed with the soil, the lime forms into hard cakes, becomes deprived of the power of performing its chemical offices, and, therefore, remains in a state of inertia, incompetent to do good. But if such lands be thoroughly relieved of their excess of water, then ploughed and the lime applied, its action will become apparent and salutary; as it so happens, that such lands are generally filled with large quantities of vegetable remains, which, from being long chilled by the presence of water, and excluded from the influence of air, are inert and afford but little if any nutriment to the cultivated plants. But change their condition, draw off the water, admit the ingress of air to warm up the earth, and apply lime, and you at once furnish the leaven that will work up this raw material into food for plants—make fields that were incapable of growing any but the sour grasses, competent to grow any crop whatever—make fields that were, from their stiffness, killing to man and beast, friable and pleasurable to work, and above all, you cut off the sources of malaria and disease, and ensure health to your family. When we speak of *Lime*, we mean to include *marl* in the phrase, and so desire to be understood, and as to any difference between Stone or Oyster shell lime, we are free to confess, that we give the preference to the latter. Though both are good—the latter we hold to be best, because of the phosphate of lime or bone earth, which it contains—a substance, which, we think, will also be found in nearly all shell marls, and which we believe, greatly enhance their value.

AGRICULTURAL BUREAU.—Joint resolutions have passed both branches of the Legislature of Alabama, by a large majority, instructing her Senators and and Representatives in Congress to urge upon the National Legislature, the establishment of an Agricultural Bureau at Washington, embracing Agriculture, in all its varied and extended forms. Resolutions of similar import have been passed by several of the State Legislatures, but the Alabama resolutions are more full and comprehensive. They demand action at once, and on a scale suitable to the wants of a great Agricultural people.

Poudrette.—We have received a pamphlet containing various statements relative to the manufacture of Poudrette, or Night Soil, as practised at the Lodi Company's establishment, New York. Large quantities of manure from this factory, are used in Maryland and Virginia, and of late years we have heard it well spoken of. For price, &c., we refer to the advertisement in our pages for this month.

COTTON.—British capitalists have, during the last two or three years, attempted to cultivate New Orleans cotton in the district of Dharwar, in India. In 1847-'48, about 20,000 acres were cultivated, and specimens of the cotton were sent to Manchester, where they gave much satisfaction to the manufacturers, and it was generally supposed that Great Britain would be able to raise in a few years nearly all her own cotton in her own possessions, and thereby no longer depend on a supply from the United States. It is now ascertained that the crop of Dharwar has rapidly decreased—that instead of 20,000 acres being cultivated, only 4000 were cultivated during the past year; moreover, the cotton of India is not well cleaned, and it can only be used for coarse kinds of goods.

INSPECTIONS IN BALTIMORE, FOR 1849.—In the Mayor's Report to the City Council, on the 21st of January, we find the following information:—

Wheat Flour inspected, 750,686 bbls.; 27,667 half bbls.—Rye flour, 8,007 bbls.; 9 half bbls.—Corn Agricultural Lime exported 1,000,000 bushels.—Wood burnt Lime received, 220,000 bushels.—Clover seed, 28,000 bushels received, average price, Meal, 428 hhds.; 51,772 bbls.; 2,051 half bbls.—$4 50.—Timothy Seed, 5,000 bushels received, average price, $3.—Pork inspected in ten months, 17,129 bbls.—Beef, 4,156 bbls.—Cheese received, 3,500,000 pounds, value, $262,500.—Butter received, 2,969,000 pounds, value, $405,040.—Hogs, per Railroad, 195,665 head.—Salted Fish, inspected, 71,041 bbls.—Tobacco, inspected, 45,435 hhds.; shipped, 57,451 hhds.

As there is no inspection on some of the above articles, the full amount is not known.

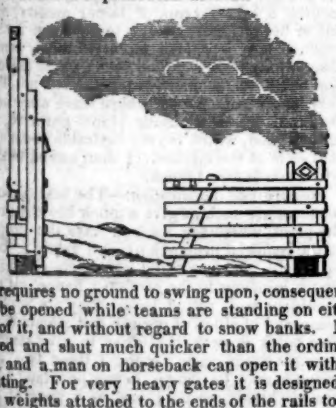
Agricultural College and Experimental Farm.—The Governor of N. Y., in his late message to the Legislature, states, that the Board of Commissioners appointed to mature a plan for the establishment of an Agricultural College and Experimental Farm, had entered zealously upon the duty, and had gratuitously devoted much time and labor to advance the object in view—and the Governor most earnestly hopes that no cause "may prevent the establishment and the endowment, upon a wise and comprehensive system, of an institution so beneficent in its design, and so promising of enduring and beneficial results as a school for instruction in practical and scientific agriculture, and in the mechanic arts."

The Governor of Massachusetts in his late message to the Legislature, says:

"The application of science to agriculture is attracting the attention of the public, and exciting the interest of those who are engaged in the cultivation of the earth. A better knowledge of the qualities of the soil, and of the nature and properties of the substances necessary to enrich it, than has heretofore been generally possessed, would greatly increase its productions. This knowledge may be derived from science. Chemistry holds this treasure in its hands. Schools and lectures, publications and practical experiments, are the instruments through which it is to be attained. Whatever can be done to promote this desirable object, by legislative aid, is due to this large and respectable portion of the community who are engaged in it. Content with the bounties received from the earth, this class of our fellow-citizens have hitherto received but inconsiderable contributions from the government. I cheerfully commend the subject to your favorable consideration and action."

KENNEDY'S BIOGRAPHY OF WIRT.—We have received from Mr. J. S. Waters, a copy of the second edition of the Biography of William Wirt, by Hon. J. P. Kennedy, of this city. Although it is not directly within our sphere to criticise on works of the character before us, yet we cannot withhold the expression of the gratification which we have experienced in the perusal of its pages. There is a sprightliness and depth of thought, running through the numerous letters which are introduced by the biographer, which are well calculated to amuse, interest and instruct—added to which there is such a fervent devotion, and dependence on an overruling Providence, which stamps the true christian character, that it is refreshing in the extreme to contemplate the exalted feeling and principles by which that great man was impelled through all the vicissitudes of life. Moreover his determination to sacrifice every selfish feeling of ambition, when the happiness and well being of his beloved family were likely to be jeopardied, to our mind is one of the noblest traits which these pages portray in the history of Mr. Wirt. No book, ever introduced to our family circle, has been read with more intense interest than these memoirs—and as we are always anxious to extend the happiness of our fellow beings, we would recommend to every head of a family to procure these volumes for the perusal and study of their children. It cannot be otherwise than that they will be inclined to a greater purity of life, and to receive a higher relish for those things which are calculated to exalt the minds of men.

SMITH'S VERTICAL GATE.—A model of a gate which we think is likely to be much approved of, is exhibited at the rooms of the State Society. The annexed cut will give some idea of the gate, one half of which is represented as shut.



It requires no ground to swing upon, consequently can be opened while teams are standing on either side of it, and without regard to snow banks. It is opened and shut much quicker than the ordinary gate, and a man on horseback can open it without alighting. For very heavy gates it is designed to have weights attached to the ends of the rails to assist in raising them, but gates of ordinary size do not require weights. It is intended for any place where a gate is needed, but is especially applicable to Ferry Boats, the doors of Stables, and many other places where the swinging gate would be inconvenient—it can also be made *single* for narrow passages.

It costs no more than the swing gate, (including posts,) and is less liable to get out of order, and more easily repaired, if repairs are needed.

For the American Farmer.

ESSAY
ON THE
CULTIVATION OF TOBACCO.

BY R. N. MILBURN, ESQ., OF BALTIMORE.

[The following essay was written in competition for the prize offered by the publisher of the "American Farmer."]

I shall not, in this Essay, propose to write a learned lecture on the nature or use of Tobacco, but confine my remarks to the particular objects proposed to be considered, and so arrange the different parts, as to be convenient for reference. As there are so many different things to be noticed, I shall be as brief as possible, that I may not extend my remarks to too great a length. I shall commence with a description of the article most desirable to be produced; then give some directions as to its culture, and how to prepare it for market, &c., and a short table of the production and exportation, for a period of sixty years, and then notice the comparative profits of Tobacco and other crops, and the best crops to cultivate with Tobacco;—and if I shall succeed in convincing the Tobacco planters, that the disasters which have attended the cultivation of this staple, have not been in consequence of the exhausting nature of Tobacco, or the low price of a good article, but that it has been in consequence of the bad policy which has been pursued; and so far succeed as to induce them to cultivate it only on soils and in situations suitable to its production, and to prepare it for market in good order, I shall have at least done as much as the man who makes two blades of grass grow where but one grew before.

Qualities of Good Tobacco.—The best qualities of Maryland Tobacco are such as are light yellow, and the most desirable texture is that which is most like silk; but, bright red is not objectionable; in all kinds the color should be uniform, the stem and veins to be small, and of the same color of the leaf; the broad leaf is the best if it retains its texture,—and those qualities are desirable in Pennsylvania, Virginia, and most other Tobaccoes, but they are very desirable for Maryland; also the scent of Tobacco constitutes a large portion of its value, which can only be produced by the proper soil and manure, and retained by careful management, which embrace the two most essential parts of successful Tobacco culture.

Soil.—The best soils to produce fine Tobacco are such as are well supplied with Silica of Potash, with well rotted vegetable mould, free from wet, but not disposed to dry too soon, soft fine sand, such as is generally called light brittle soils—mixed with red clay, on clay sub-soils is best,—such soils can be selected by their general appearance, and their not being too wet, after rains, and not being hard when dry.

Large Tobacco, of fair quality, may be raised on soils more mixed with coarse sand, or yellow clay, if the soil is well supplied with the proper stimulants, such as is described for fine quality.

Large heavy crops can only be grown on soils, well supplied with fine sand and clay, such as is most prized for corn and other crops which require a quick and continued growth.

Seed, and time of Seeding.—The selection of seed is of more importance than at first view might appear, as the kind that will produce a fine article,

would not grow a heavy crop, and the best kind to grow a good crop, in quality and quantity, might not be best for either; to make a fine article, I would select the finest and fairest leaf I could get, that was not a dwarf size, and depend for quantity by the number of plants.

To select seed for a medium crop, I should prefer a kind with a large fair leaf, and good size stem, but small veins, disposed to cure yellow or bright red.

To select seed for a heavy crop, the seed described last, would answer, but such as was more heavy in the leaf and stalk, would not be objectionable—seed the first opportunity after the first of January.

Soil and Preparation of Plant Beds.—The soil described for fine Tobacco, is the best for plant beds; the best situations for beds are such as are remote from cultivated or grass lands, as they both induce the fly; for beds in the woods, where there is no grass, are seldom, or never, troubled with fly. If you get the right soil, there need be but little fear of success, as its poverty can be corrected with manure, and, as this is a vital part to success, it may be well to be a little explicit; and to do so, I will state my present mode—after the place is selected in a thick woods, to avoid grass and fly, the soil is laid bare, by raking and scraping the soil free from trash, and half rotted vegetation, and hoed up two inches deep, and the roots taken out; then put on from 1,000 to 2,000 pounds of best Peruvian Guano, per acre. The latter quantity, the best, and after the bed is well prepared, it is laid off in ribs three or four feet wide,—if the situation is rolling, they are left flat; if the site is flat, they are raised in the middle, to carry off the surplus water; and seed from one to two pints of seed per acre,—the first will produce the best plants, which is of much importance.—The soil should be well pressed after seeding, and covered with spruce pine, or dry brush will answer, if a sufficient quantity be used, to keep off the frost, which might remain until danger is over; but the plants would be benefitted, by the brush being removed, to let the plants have the sun, in warm days, and returned in cool, dry, windy weather, or when there is danger of frost,—when the proper precaution is used, the plants will not be much injured by grass, for when beds are manured with manure from the farm, it ought to be such as is free from seeds of all kinds, which may be had by using composts—likely the best would be a mixture of ashes, or silica of pot-ash, in some form, woods scrapings, wheat straw, or any vegetable, that is rich in pot-ash, with rich earth, stable manure, &c., which ought to be well rotted, but not suffered to get warm; burning of beds is a tedious process, and one that is difficult in many situations, for want of proper fuel, and as it can be avoided, it is best to do so, which experience has proved may be done—I have tested it, side by side, for years, and see but little or no difference, where Guano is used, and it is likely that the compost would answer as well—plants may be much relieved, in dry weather, by watering, or building scaffolds over them;—though these are tedious expedients, the crop is lost without plants. When water is used, it should penetrate the soil, by continued application, three or four inches, which will do for three or four days.—The same place will grow plants for several years, if the soil is covered with brush, or other covering, to keep off the grass, to prevent the fly and grass in the beds, as they do not get foul, or become filled with coarse charcoal, which is injurious to the growth of plants.

Choice of Land and Preparation.—After the soil is selected, and the kind to be raised is determined, the next consideration is, the best crops to precede tobacco—for old land I would prefer some hoed crop, to free the land of trash, or undecomposed vegetation; but wheat stubble, or clover land, may be planted with success, if properly prepared;—if either is taken, they may be enclosed, and a growth permitted to cover them, during the spring, but it ought to be grazed off in May, or just before the land is prepared for the crop to be planted, as tobacco is more likely to start quick, in land that is not broke soon in the spring. If the land is in clover, and the growth is sufficiently early, it may be cut for hay, in time, of which I will say more under another head.

To break land for fine tobacco, it should not be over three inches deep, and well ploughed, harrowed and rolled, and when fine, laid off to plant; for a medium crop, the soil should be broken five inches deep, and for a heavy crop six or seven inches.

Distance and Mode to Lay off the Land.—The old practice of planting tobacco an equal distance each way, I do not think the best, as you are confined to too few plants, and do not save much labor, and have less space to pass through, or work the crop. After the land is ready to hill, let a small plough run furrows, three and one half feet from centre to centre, and then list up the rows with a large one horse plough, but not deeper than the manure is in the soil, of which I shall say something, in its place, leaving the list flat on top, having all the top soil in it. Then it can be laid off, either by hilling or rolling with a ribbed roller; the hoe is best, and not much work. The distance ought to be determined by several considerations; if plants and labor are not too valuable, close planting is best, as it secures a larger crop, of better quality, both for fine or heavy kinds; twelve to fourteen inches will produce a crop, worth twenty-five per cent more than twenty inches, which is as wide as any description ought to be planted, for I have not known a very heavy crop grown, where there were not more than four or five thousand plants per acre, and the sample good, which is very desirable under the present state of the market. I shall attend to this subject again before I finish.

Manure and Application.—The best manures for tobacco, are such as give a quick healthy growth to the plant, which are such as have the proper food in the required proportions, and ready to be taken up by the plant, without any chemical change, as that is injurious to the rootlets; hence, all manures should be well rotted before they are applied, and composed of silica of pot-ash and ammonia; one to give quick growth, the other to give strength and firmness to the parts; without these two, good tobacco cannot be grown, hence new land tobaccos are so highly prized; and as a general rule, no manures ought to be used until they are so far decomposed as not to heat, and so mixed as to have a sufficient quantity of pot-ash to dissolve a large quantity of silica, to form silica of pot-ash, or to have such vegetable matter as contain silica of pot-ash, such as wheat straw, corn-stalks, woods manure, horse manure, or other such composition.—Good tobacco cannot be grown without silica of pot-ash, in some of its combinations;—a good compost might be made from wheat straw, corn-

stalks, and any other vegetation, with ashes, leached or unleached, pot-ash, soap-suds, horse manure, woods scrapings, tobacco-stalks, a small portion of lime, and a sufficient quantity of clay to keep the whole from heating, and any other matter that did not contain too much acid, which ought to be avoided, as there ought to be but little quicklime used in composts for tobacco. Where vegetable manure is scarce, guano might be used to advantage, either on the land or in compost, but not without pot-ash in some form; the manure ought not to be spread until after the land is broken, and then not turned in over three inches deep, except where a heavy crop was the object, as the whole should be collected as much as possible under the plant, and be well mixed with the top soil, so as to promote a quick growth, and then to let the plant mature by taking up the silica of pot-ash, and get a yellow color and firmness, which is required, so as to give it color and high scent when cured, which are so desirable.

Planting and After-Culture.—The best way to draw plants, is to retain all the small roots possible with as little injury to the plants that remain, as well as those taken out, as a bruised plant is not likely to live, and if it does, will not grow kindly; they should not be planted deeper than when in the bed; great care should be taken to keep the plants dry, and out of the sun, as a plant that is wilted, or covered with dirt, does not do well,—the best way to carry plants any distance, is loose in a cart, covered over if the sun shines, and as soon after they are drawn as possible, and set out without delay. To secure an even growth, there should be left some plants of good size to replant with, and as soon as the plants begin to take root, which is in about five or ten days, they should be wed, just taking off the top crust and any grass that may be in the hill, but the middle of the space between the rows need not be disturbed, for two or three weeks, when a small plough should pass, land side to the plants, as near as possible on each side, and then down the middle, so as to keep the middle of the space lowest, to drain off any surplus water; when the hoes should follow, if the weather is dry, to draw some fine moist soil round the plants; but if the soil is moist, to cut up any grass that may have been left the first weeding, and reweed the crust off the hills, and round the plants, as the soil should not be stirred deep near the plant, as it is best to promote an early and quick growth. When the plants are one and a half to two feet high, the cultivator should be passed through it, and the leaves lightened out of the soil, and grass and weeds removed from the plants; and if the plants were wed when ploughed, they should have fine soil hauled from the middle of the rows round the plants; but if this was done when they were ploughed, it may be dispensed with when cultivated, and only take out the leaves as described above. But if the situation is flat, and subject to too much wet, the plough ought to be used at the last working, and the middle of the space left lowest to keep the water from the plants; and with this operation the culture is ended.

Worms, their History and Destruction.—There are but two kinds of worms that are very destructive to tobacco; they are generally called the ground and horn worms; the former is only so in the early part of the year. To prevent their presence is much better than any mode to kill them, and I think much may be done by proper and timely precautions, in noticing the mode of preparing the land. I referred to hoed crops before tobacco, which is one mode of preventing the worm, but when there is a growth on the land, I think much may be done to destroy them; it is generally believed that the common candle fly is the same insect, and as they are first seen about the first of May, they are supposed soon after to deposite their eggs on the young growth, and when their eggs hatch, the young worm crawls to the earth after it has obtained a sufficient size to burrow in the soil,—but if the growth is eaten, or cut off, and carried from the field, many are destroyed. I have had fewer worms, after cutting and carrying off clover hay, than under any other circumstances. The horn worm is more destructive, being more numerous, and their history is so well understood, from the egg to the time they are grown and burrow in the earth, that I shall not say any thing on that part of their existence; but there is much doubt in regard to the length of time, and the insects that may represent them, as there are some facts which go to prove, that they must be more than one winter from the worm to the blower, as they often are found very destructive in sections, where there were but few the year before, and it is often the case, that there are but few to be seen in whole neighborhoods the year after they have destroyed the whole crop, which can only be accounted for, by supposing they either migrate a long distance, or are more than one year from the worm to the blower. I have taken much trouble to trace them, but have not been able to keep up the connection any further than April, when they are not much removed from the state they are found in tn October before, which is a brown red color, with ihe head end contracted to a hard pipe, and turned under the belly. From three to six inches under the surface of the soil, they make their appearance in May and June, but not in such large quantities as in August and September. I think it likely that they fly about some days before they deposit their eggs, but not much if any after,—that they increase instead of diminish, is certain, and if there is not some more successful mode of destruction adopted, they will, to a large extent, curtail the profits of tobacco culture. I have, for many years, given particular attention to their habits, and the best mode of destruction, and think much might be done by the following policy, if all would be induced to adopt and prosecute it—to destroy all the eggs and worms possible by poultry and hand, and let all the large flowered vines and weeds be destroyed near the tobacco field, except a plat of Jamestown-weeds, which ought to be let grow, to attract the blowers, so as to kill them in the shade of the evening, with a light hand paddle; and to effect this, no tobacco should be suffered to bloom, except for seed, and those might be watched. This may appear tedious and expensive, but one hand will destroy more worms in the blower, in two hours, than he would in as many days killing worms. I have learned cats to kill them, which some do with great dexterity;—take a young cat, and carry it to the weeds, where they are, and catch them, and take off their head, and give them to the cat, and they are soon caught and eaten by the cat, who is fond of them; it is in this time of their existence, that I have any hope of destroying the increasing quantity,—as after the worms get plenty on the tobacco, it is impossible to keep many from escaping.

Topping and Succoring.—There is no part of the culture of tobacco on which planters have differed

more than topping; the old method of topping, to fourteen to twenty leaves, was at one time almost entirely abandoned, as the lower leaves which cured in the field, became the most valuable part of many crops, and as it became an object very desirable to produce as many ground leaves as possible, (which I believe commenced about 1820, when Mr. John Milburn, late of St. Mary's County, Maryland, sold one or two hogsheads in the Baltimore market, which attracted much attention,) the practice of high topping, became general in Maryland; but since this description of tobacco has declined so much in price, I think it likely that such high topping is not advisable, as the last leaves that form are not so leafy or fine, and the plant will cut as heavy when topped to sixteen to twenty leaves, as when permitted to grow its full height, and it will be ripe one or two weeks sooner, and not be so subject to blow down;—though it might be desirable to top all the plants at the same stage of their growth, this would be attended with great care and labor, and my practice is to let all grow, until the earliest is nearly in bloom, when I top all that will bear it, to sixteen to twenty leaves. If the tobacco is very even, I top all, but if not, I top all of two rows together, to make a road every twenty rows, so as to pass a cart through when I cut; and when the tobacco that has not been topped is about to bloom, I top all, and prefer this to be as soon as the 20th of August, but should be by the first of September, to make good tobacco; and if the plants are topped so soon in their growth, the hand is the best mode to do it, as the bud is tender and brittle; and by adopting this mode, you divide your crop, in two distinct parts, which will continue to the end of the season. I do not take out any succors, until they get from four to six inches long, in the first topping, when I take out all, and then, when they get the same size again, or when the plants are nearly ripe, I succor again, and so with the second topping, and by this process, you are aided in determining when to cut each plant; as all is to be cut after the second succoring, and none at the first, which obviates a difficulty which hands often have to contend with, as but few can be taught to exercise a wise discretion; and by this mode you can pass through the field with the cart, the first cutting. Priming is not much practised in Maryland, and it is doubtful whether it is of much benefit above the cost in Virginia, or any other section, as the leaf, when ripe, does not draw on the resources of the plant, more than it gets from the air.

Cutting and Housing.—There are three modes to cut and house tobacco; the method of pegging is so entirely abandoned, I shall say nothing of it; but of the method of splitting and spearing, I shall take particular notice, as this is a process on which there is much diversity of opinion,—splitting tobacco is attended with extra trouble, and causes many leaves to break from the plant, and they are nearly worthless, as they will hardly pay to save them, as they make an inferior article; the best implement to split with, is one that cuts at the end, and made very thin in the blade, as such break off fewer leaves; after which, the mode that will bruise least, and get the tobacco on the sticks cheapest, is the best; the mode I prefer, is to spear, as there is less labor and less waste of leaves, and I much prefer this mode, after several years close observation. I will give you a short description of the process:—The plants are cut down, either with knives or clevers, and laid in piles in each fourth row, butts all one way, and carts, with broad smooth bodies follow, and the tobacco laid straight, and as much as will lay on, and then hauled to the barn, where there are posts planted in a row, at such distance as will permit sticks in each post, and leave sufficient room to put the load between them, and have room to spear plants on the sticks, on each side of the load, so that the plants may be conveniently removed from the top of the pile, or load. There need be no fear of the tobacco breaking much, if properly emptied out, though it may be just from the knife, which it should be, as it bruises less and cures best when sticked, while the plant is yet stiff, as the leaves do not stick to the stalk, or each other. I do not scaffold tobacco, but put it in the house as soon as speared, either on the lower tiers, or where it is to cure; it may be restowed if room is needed, but there is not so much difference in the quantity that the house will cure, scaffolded or not scaffolded, as tobacco does not generally injure in the house, until it begins to cure.

Curing and Stripping.—Firing tobacco, though at one time thought indispensable, is of doubtful utility, and from the many drawbacks that attend it, I think there should be positive advantage derived from firing, to meet the expense and risk, besides the evident loss of weight attending the process. The smell of smoke is very objectionable in the flavor of Maryland tobacco, and I think it very doubtful whether the same plant is increased in value by fire; and if this is the case, there is certainly great loss by the use of fire. Though I do not advise the use of fire to cure tobacco, I would by no means inculcate the notion that curing tobacco was of little moment, as on this and the after management, depends as much as before; and generally, tobacco suffers more from neglect after cutting, than before. To cure a good sample, the houses should be tight when closed, and open when desired, but not so tight as to prevent the escape of dampness, and the gas from the tobacco. There should not be over seven to ten plants, to the stick, and those put on the tires, from eight to ten inches apart, and let the house be well ventilated, in all weather that is not decidedly damp, as tobacco, when curing, is more liable to injure from heated than damp air. When cured, the sooner it is stripped the better, but great care is to be taken in the stripping and after management; the kinds in color, fineness, and size, should be separated; and the best mode I have tried, is to let the first hands strip off the second, and divide the plants in piles of large and small, and yellow and red; then, let the next hands select the most perfect leaves out of each kind, and tie them separate in small neat bundles, then let the next hands strip the imperfect or small leaves, and tie them to themselves, making three kinds of each separate quality; let them be kept separate till packed for market. As much damage is done to tobacco from injury in the winrow or bulk, I think that the best way is to stick the tobacco after it is stripped, unless it is well cured and very dry when stripped, (for that process)—as when soft and put down in bulk, or winrow, it is apt to heat, if not mould, which is very injurious. I am aware that sticking tobacco is objectionable, but if properly managed, is not so much so as to have the tobacco heat in bulk, which is often the case. If it is sticked thin on the stick, and the first time after it is dry, taken, when moist, and put down in winrows, of four lengths of bundles, straight, and on sticks to admit the air under them,

and packed or bulked, when the warm weather comes in the spring, being particular to have the stem hard, I think it would suffer much less than to be put down, when in damp condition, when stripped. There is one thing, that ought to be kept in mind, that tobacco, once heated, cannot be restored to its flavor again, and I cannot urge this fact with too much earnestness on the attention of planters, as more than one half the crop of 1848, has arrived injured from this very cause; and the best flavored crop I have sold this year, was packed from the sticks during the summer, where it had been during the year. But few planters are aware of the damage to their tobacco by the loss of the sweet-scent; you had as well try to convince a good cook that tainted meat would make a good steak, as to satisfy a German that heated tobacco was a desirable article.

Hogsheads and Packing.—The size of tobacco hogsheads is not restricted by law, for any tobacco that is inspected in the Baltimore market, except the growth of Maryland, which is fifty inch stave, and thirty-eight inch head, but, for several years, little attention has been paid to the law, either by Planter or Inspector, and many arrive and are not condemned, much over the size designated by the law; and this is a matter that ought to be strictly uniform, as some derive benefit from a violation of the law, while others are restrained by a dead statute. If the law was so changed, as to admit hogsheads of forty or forty-two inch heads, and then let it be enforced, I think it would be best, but not until due notice be given; and as to the best kind of timber, I judge that to be of little importance, as the most inferior kind will make good casks, if the staves and heads are sawed of sufficient thickness, which for soft wood, should be ⅝ to ¾ of an inch, not over six inches wide, for staves; when good timber gets scarce, good hoops can be made of the young growth, and such as will make six hoops answer well. As to packing, there are but two things to observe, that is the order, which should be particularly attended to, as much arrives out of order, and from much observation, I find there is a loss of twenty-five or thirty per cent. if stayed, in quality and quantity; if the stem is sufficiently hard to break, and the leaf sufficiently moist, and not more so than to prevent breaking, it will not injure, if it has been in bulk, or winrow, and not when from the stick, in warm weather; the only essential thing to be regarded in packing, is to have your tobacco uniform and straight, and not prized too hard, as it is often injured before it is bruised; seven hundred pounds is sufficient for fine Maryland tobacco.

General Remarks on the Culture of Tobacco.—In the foregoing remarks, I have been as brief as possible, and will, in conclusion, on this part of the subject, take a short review, to state some of the advantages to be derived by the system proposed. As labor is of more value, in the tobacco growing districts, than land, I have proposed to dispense with all the labor possible, to produce a good article, by not burning plant beds and excluding grass, and thereby save the labor of picking beds; to prepare and plant the field as early as possible, and with as little labor as can be; for though I propose to plant close, I would not insist on every plant standing, as where but one plant was absent in a place, it would not be of much consequence, and though I propose to cultivate early, you will find it is when the land is clear of grass; and is soon over, and of the simplest mode, and no other mode of topping and succoring, could be less expensive; and as to cutting, and housing, it is the most expeditious in use, when the labor is nearly finished; but such as can be performed in inclement weather, and by the weak force on the farm. There is one other thing I would remark in this connection, that is, every time you handle tobacco, it should be with care, but the fewer times it is handled the better, so the desired object is obtained, and as I propose to spend as little labor, and produce as full a crop of fair quality as most other modes, I think it will be considered that thirty dollars per acre will defray the expenses, of production and preparation for market; and as in this Essay, I have to consider the profits of tobacco culture, I shall put this, as the medium cost of tobacco, which will be a matter for the consideration of my readers; but I think we ought to have some sum as a standard to make our comparison by, and though I have had more particular reference to the culture of tobacco, in Maryland, the whole is so general, that it can be applied to any section of country by intelligent planters, who are conversant with tobacco culture, with much the same force as if written for their particular location.

As I have but little space left, I shall have to proceed to the consideration of the last thing to be considered, that is, our future course, and as we ought to enter into it, with discretion, based on facts, it will be well to review the tobacco trade in periods past, and then compare them with the present, and from such facts determine for the future. And to be as plain and short as possible, I shall here give a table of inspections, at several periods and ports since 1791; and where I have not the precise amount, I shall give the large numbers, leaving out the fractions, or adding the fractions to make whole numbers, but not to change the amount to effect the result:—

Inspection of Tobacco in different Ports in the United States.

PORTS.	1821	1825	1830	1841	1842	1845	1846	1847	1848
Baltimore,				39,500	46,650	60,000	69,000	50,000	33,623
Baltimore and D. Columbia,	27,157	26,155							
New Orleans,			28,028		92,509	72,896			55,882
Richmond,								51,726	36,725
Philadelphia,								4,161	2,241

Exports of Tobacco from all Ports of the United States.

1791	1819	1820	1821	1822	1823	1828	1846.
12,428	69,427	83,940	66,858	38,169	99,009	96,278	147,998

It will be seen, by the above, that the inspections since 1846, have decreased near one half, and as the consumption remains near the same, if not equal to that period, the present stock will soon be consumed, if the production does not increase, which was not the case last year, as the inspections of this year will not likely exceed those of last year; and the crop of the present year may still be less than that of last year, especially in Maryland and Ohio; and under these circumstances, the prices of tobacco must improve; this is the general impression with those who are engaged in the trade, as the improved state of this market clearly indicates; and under such favorable indications, it would be bad policy to abandon the cultivation of a crop, that has paid, when properly managed, under more unfavorable circumstances, which, I think, may be clearly demonstrated by a fair estimate of the cost, and sales of the crop, when judiciously managed, and no other crop will be found to pay expenses, when injudiciously managed, or produced; and in conclusion, I shall try to show, that tobacco can be cultivated with profit, and especially in Maryland, and as much so as most other crops, and then suggest such crops and proportions to be cultivated, in conjunction with it.

As I have remarked above, that the probable cost of an acre, when ready for market might be put at thirty dollars, which will pay all expenses, when fairly managed under the system I have advised, and the cost will not vary much whether you cultivate a fine or coarse description, for in proportion that the article is fine, it requires more care and neatness in the management, and it does not vary the expense much, whether a fair crop is five hundred or fifteen hundred pounds per acre; some may be led to say, that five hundred pounds is no crop at all, as in some sections of Maryland, fifteen hundred pounds is only considered a fair crop, as it often gives two thousand pounds, and I have known two thousand five hundred pounds, and heard of three thousand pounds, of which I am not disposed to doubt, as I tried one-fifth of an acre, the best I had in my crop, and it made six hundred pounds of good tobacco, which sold for over seven dollars per 100 pounds; but this is such a yield as no person should base any calculation on; but I introduce these facts to show that the profits of its cultivation is not confined to those sections of country which produce fine tobacco, as the price and quality are much nearer proportioned one against the other, than many may be disposed to think. There was a circumstance occurred, in one of the warehouses in this city, in 1842, which went to illustrate this fact; there was a planter from Montgomery County, Maryland, present, when there was some tobacco being opened there, from one of the lower counties on the western shore of this state, which was large and heavy, and the gentleman remarked that it must be very unprofitable to cultivate tobacco in a district where such tobacco grew, as it would not command over four dollars, and stated, that he obtained ten dollars per hundred pounds for his whole crop. A gentleman from St. Mary's county, who was aware of the difference of quantity that was produced in different locations, and from different soils and kinds, remarked, that though he only sold his crop for six dollars and seventy-five cents per hundred pounds, he expected that he obtained the best price, and inquired the amount the gentleman obtained per acre, who stated it to be six hundred pounds, which was sixty dollars per acre; the other, from St. Mary's, stated, that he sold fourteen hundred pounds, which was ninety-four dollars, which was over the average price of the county, but not a large crop, for one that was well managed; and I have made much enquiry from most sections of the western shore of Maryland, where the land is adapted to the growth of tobacco, and find that fifty dollars per acre is not too high an estimation for an acre of well managed tobacco, on a proper soil; and I think that most planters will be convinced of this, if they will make the trial, by careful experiment; or in other words, thirty dollars properly expended on an acre of land, suited to the growth of tobacco, will produce fifty dollars worth of tobacco. As I think this an important point, I shall state it in another way:—If you produce fifteen hundred pounds of heavy tobacco, and get three and one-third cents, you have fifty dollars, and if one thousand two hundred pounds, and get four and one-sixth cents, you have fifty dollars; and if one thousand pounds and get five cents, it is fifty dollars; if eight hundred pounds and get six and a quarter cents, still it is fifty dollars; and if the crop is very fine, and reduced to six hundred pounds, and the price be eight and one-third cents, you have the fifty dollars; and I hope that our lower county friends, will not think that I have quoted the price of 1818—not so; at the most depressed state of the market, these prices have been obtained for well managed tobacco. I have cultivated tobacco in St. Mary's county, Maryland, eleven years out of the last twelve, and have obtained an average of sixty-three dollars per acre, after paying freight and commission, and I do not think my expenses have been thirty dollars per acre; and if these calculations are fair, and to be relied on, I think that twenty dollars per acre, will be considered a fair rent for land in any of the tobacco growing districts. If it should be found that well managed tobacco land, yields such a net rent, in Maryland, I think it is as much as can be claimed in any other state. I have travelled some, and inquired much of persons who ought to be well informed on the subject, and think that I shall be sustained by those best informed, who are the producers, that there is not a State which gives such a net profit, except Maryland. I will compare it with Ohio; there the crop is much better managed, as any person may see by comparing the crops in market; there it is very common to strip the leaves from the stalks in the uncured state, and sort them, split or skewer them, and arrange them carefully in the house, and fire them, and then select them again, and prepare them for market in the best manner, as their samples show in market, and after all this labor, thirty dollars per acre is considered a high price on the farm. I am persuaded that one could not get a Maryland planter to expend so much particular labor for forty dollars. It is not my purpose here to show that Agriculture is more profitable in Maryland than Ohio, but I have deemed it not foreign to the subject, to show where tobacco culture is most profitable, and in this connection, I shall take occasion to remark, that while I would advocate the culture of tobacco in Maryland, I should not deem it prudent for Maryland to forget all her other resources of wealth for the culture of tobacco, which has nearly proved her ruin. That Maryland and Virginia, if not other States, have not studied their interest, in being so exclusively engaged in its culture, I think is evident; but I think past experience, and the development of other sources of profit, will guard her in future

from that error, a system which has seldom proved advantageous to any State. That mixed crops are more profitable than any single one, I think, is generally admitted; and there is no section of our country, where it is more true, than in the tobacco growing districts of the United States; and none more so, than in Maryland, where every man has a market at his door, for all his surplus products, and that for cash. The question may be asked, what crops should the tobacco growing part of Maryland connect with it? But I think the question might with equal propriety be asked, what product which is suited to our soil and climate, should we not produce? for there is but one kind of product which we export to any amount, and that is bread-stuff; but in return, we are getting hay, potatoes, butter, cheese, fruit, and many other articles, which we ought to send to our northern neighbours, who supply us with several agricultural productions. Still, the question may be pressed by each individual, what ought I to produce in connection with tobacco? In reply to such an inquiry, I can only add, that my answer must be general, and each individual will have to determine in what relation they are placed to these remarks. The first thing is to determine who ought to cultivate tobacco,—and, as a general rule, I would not advise any person to do so, that cannot safely expect to produce near the amount and quality I have stated, with proper care and industry; for all who have the right soil and situation, if they use the proper manure and management, will do so,—and where tobacco is part of the crop, it should not be more than one-third, or at most, one-half the crop, in value, and every thing should be raised for the use of the farm that can be produced for near what it would cost to buy it in the market; and then select such crops that are best calculated to improve the soil, and give the best net profit; and the improvement of the soil should be the first object—for the farmer that keeps out of debt, and makes his farm rich, is rich himself, for he has the means to live independent, and make still further improvement, or enlargement of his estate. And before I close I shall try to meet one old and universal objection to the culture of tobacco, to which has been attributed the exhausted state of the old lands of Maryland and Virginia. That the tobacco growing districts of both States, have been impoverished by imprudent cultivation, no intelligent man will question, and that the culture of tobacco promoted and prolonged it, is equally evident; but still it does not follow that under a different system it could not be made a means to aid in the renovation of the same soil it exhausted; when cultivators of the soil only applied those manures which accumulated of necessity from the feeding of stock, and applied them exclusively to tobacco, and that sold off and not returned in manure, it could only tend to impoverish the land. But I hope I am not writing for such tobacco planters in this enlightened day, when farmers and planters are estimated by the improvement they make of their estates, and, if the right view of the subject is taken, I think that tobacco culture will not be found inconsistent with speedy improvement, as the poorest land will be found to be best suited to the culture of it, and will repay the expense of improvement sooner than in any other crop; and if it should be true, that poor land can be made rich cheaper, when cultivated in tobacco, than in any other crop, surely it will not prove that it is an impoverisher of our lands. This might be the case if no renovator were to be had, but such as can be drawn from the soil which we propose to improve; but this not being the case, the crop that will pay for cultivation and improvement, and leave the land rich in the shortest time, is the most profitable crop, and which, I think, is tobacco. I will give two experiments, which I tried in 1840 and 1841; the first was on land, that produced fifteen bushels of corn; I applied three hundred bushels of leached ashes per acre, which cost, on the land, forty dollars, and the cultivation thirty dollars, which was seventy dollars for improvement and cultivation, and the crop sold for ninty-three dollars, leaving twenty-three dollars rent; the second crop was on land that would not have grown ten bushels of corn per acre; it had the same quantity of ashes, and the crop sold for eighty-four dollars per acre, which left for rent fourteen dollars;—these may be said to be extra crops, and I would say they were extra profits, but any good soiled land which will produce ten bushels of corn, may be manured at the expense of twenty dollars, and will produce fifty dollars worth of tobacco; and there are but few crops that will pay an outlay of twenty dollars in one crop, on poor land. As I have written more than many will be willing to read, I shall not proceed any further, but submit these common place remarks, hoping, that if I should not have written to profit, that I may induce some more able hand to so illustrate and define the interests of planters, on the subject, that we may all be guided by wisdom, to that perfection in the cultivation of the soil, that will give the most improvement and profitable crops, that wealth and happiness may attend industry and frugality.

HAY FORK—ON THE USE OF OXEN.

We thank Mr. Stabler for his kindness in responding to our request in furnishing the annexed drawing and description of a hay fork, to which allusion is made in the letter which we subjoin, from the Plough, Loom and Anvil. From what we have heard of the operation of this hay fork, we think it may be considered one of the most useful improvements of the day, for the farmer.

HAREWOOD, 1 mo. 10, 1850.

To the Editor of the American Farmer.

In compliance with a request in the last number of the Farmer, I annex a diagram and description of the hay fork. We have had it in use several years, and, as now improved in the mode of discharging the hay, I consider it not only a labor-saving, but also a time-saving machine.

As originally made (for the plan of which I was indebted to a friend in N. Jersey), the rope was fastened to the upper end of the handle; and although the hay was raised equally well, it was found tedious and laborious to work the trip cord; and very difficult, if not impracticable, to discharge the hay when and where desired, on the mow. In this way, its operation was not at all satisfactory.

By attaching the rope to the handle, 6 or 8 inches from the head piece, instead of the upper end, and passing it along the handle, under the trigger, at this point, a slight jerk of the trip cord, held by the man on the wagon, instantly changes the fulcrum—of course the position of the fork—and the hay falls. The trip cord also serves to pull back the fork to the wagon.

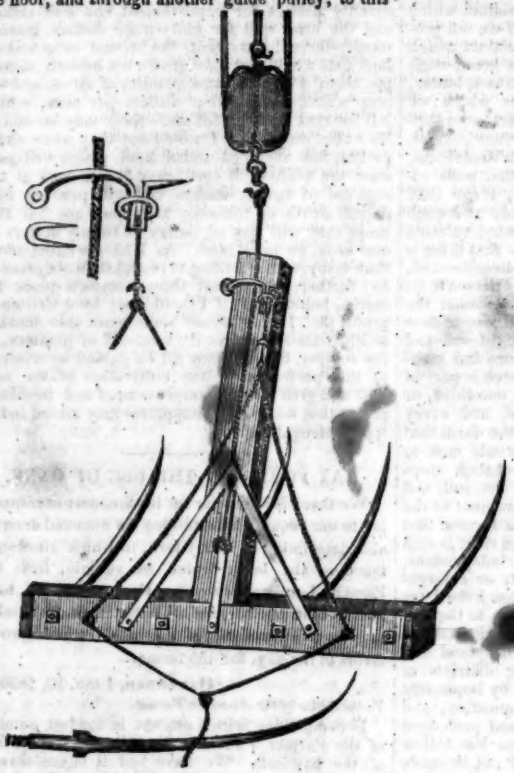
I am thus particular in describing both fixtures, as many enquiries have been made, and, perhaps, by some who use the original plan. A mere trifle in cost will add the improvement, and, as I think, nearly double its value.

The "tackle" is attached to the peak of the rafters, and directly over the centre of the hay mow; the fall rope passes under and near the rafter, to a guide pulley fastened to the upper end of the door post, down by the side of the post to within a foot of the floor, and through another guide pulley; to this end of the rope is attached a swingle-tree, or hook, as may be most convenient in working a horse, or yoke of oxen.

If properly managed, the fork will readily raise from four to six hundred weight of hay at a time (whilst a hand fork is moving the tenth part of it perhaps); and when high enough, the horse stops. A hand or two on the mow, with forks, sway it backwards and forwards, to give an impulse in the desired direction, when the trip cord, by the strength of a finger, throws it instantly in a compact layer, as taken from the wagon. Considerably more hay can thus be mowed in a given space, with comparatively little manual labor, fewer hands, and in a third or fourth of the time.

Very respectfully,

EDWARD STABLER.



Head of tough scantling 3½ by 4 inches, 3 feet 3 inches long, with bands at ends.

Handle 3½ by 4 inches, 3 feet long, inserted at right angles, and braced with 3 iron plates ¼ by 1½ inches.

Steel prongs 7-8 inches square at shoulder, set angularly in the head, and tapered to the point, 22 inches long clear of head, with screws and nuts at back end.

As the handle does not raise vertically, the prongs should curve upwards considerable, so as to retain the hay.

The trigger is very simple—an iron pin ¾ inch diam. bent at right angles, one end driven into the handle, projecting an inch, and ranging down the handle about 2½ inches. A curved iron strap, with an eye and confined at the opposite side by a small staple, passes over the rope, and the other end bent parallel with the pin: a small ring attached to the trip cord slips over both: the tension of the rope whilst hoisting, effectually fastens it, until the cord pulls off the ring.

ON THE USE OF OXEN IN MARYLAND AND VIRGINIA.

BY E. STABLER, OF SANDY SPRING, MONTGOMERY COUNTY.

HAREWOOD, 7 mo. 20, 1849.

JOHN S. SKINNER & SON—Respected Friends—Your favour of the 7th is received, enclosing a letter from Dr. R. S. B., of Va., who desires information as to the comparative value of horses and oxen, for farm work, and particularly for the plough; and with the request to write an answer, "founded on your (my) knowledge and experience," &c. &c. True, I have "written nothing for 'The Plough, the Loom, and the Anvil;'" not because I am an uninterested spectator of its course, and success; I fully approve of the one, and my good wishes attend the other; but I have no wish or desire of notoriety, and some, I fear, are already tired of seeing my name before the public. It is a source of more gratification to me, and profit also, to read of the experience and practice of others, in agricultural pursuits, than any thing I can contribute to your pages. As the Dr. appears to be quite in earnest in his desire "to turn over a new leaf," and as I have for many years made constant use of oxen, and, under the existing circumstances, in preference to horses, for farm purposes, the plough included, I have no objection to give him the result of my "experience;" for I doubt not he would quite as willingly respond to a brother farmer, if called on for any information he might have to impart. The better to understand the views of each, I will here quote his letter. He says:

"I have been seriously contemplating an alteration in the mode of cultivating my lands in future;

that is, to substitute the labour of oxen for that of horses. I have been driven to the idea, by the immense *consumption* of horses in the way of food. It is, however, difficult to break in upon long established customs, and he who makes the *first* experiment will generally encounter the derision of his neighbours, and a charge of being *visionary*. But, at the risk of all these consequences, I feel disposed to make the effort to increase the net profit of farming in this county. But, in making an experiment, it is well to look to the experience of others who have gone before you. I therefore wish to know of you, whether it is within your knowledge that the ox has been used in Pennsylvania, in *plowing in limestone soil?* I have had my fears, whether in the *heat of midsummer*, when our lands are fallowed, the ox could endure the heat, and plough one or one and a half acres per diem? A limestone soil, you are aware, is very stiff and difficult of cultivation. The next question is, when he is yoked to the plough, in what manner is it effected? Is a chain attached to the beam of the plough? and if so, it would appear to me that it would be difficult to control the depth of the ploughing.

"Can you not give a plate in your next number, as nothing reaches the comprehension so exactly as using any kind of machinery. I am happy to find that your paper has so good a circulation amongst us. I have endeavoured to do my share towards furthering this object."

Like many others with slender resources, (and in my case with impaired health, from a city life,) I began farming with horses to do my ploughing, and, indeed, the farm work generally. I had also a yoke of oxen. With no experience in my new vocation, it was necessary to superintend considerable hauling for building, and it was here I was first made aware of the decided advantage of the ox over the horse. The horses were not always true at the pinch, when every effort was required; and on the oxen we usually had to rely at last, to get out of our difficulties. There were other advantages in their use, evident at this early stage of my agricultural education, if not so important, yet quite as apparent. One was the expense of harness, eight to one, at least, in favour of the ox; and the time saved in getting to work—we could often yoke up, and get through with a short job, before the horses were harnessed and *ready* for work.

For the first year, I had no other expectation than to buy grain for my family and stock, expecting afterwards, and being determined to use every effort to raise at least enough for my own consumption; but the experience of a year or two fully satisfied my mind, that, without some change for the better, I could not get along at all. My horses not only consumed about all the grain they aided in raising, but I was compelled to buy more for their especial use and benefit. The farm was small, and withal very poor, and what with their consumption, farming was found to be a losing concern. But I had to make my living, either off my farm or by my "wits," for my health forbade a return to the city. The idea of going in debt was an alternative not to be entertained for a moment; another alternative, and which appeared quite as uncongenial to my feelings, was, to remove to the far West, and relinquish every tie of kindred and friends. This I determined never to do, unless to avoid actual want.

I was fully aware of the feeling referred to by Dr. B., of breaking "in upon long established customs;" and I had heard it often remarked, too, that oxen could not stand ploughing in the heat of summer—it might do to the North, &c. &c. I believe this was the generally received opinion, though probably adverse to that of some others, and to some extent, at least, practised by a few individuals, so far as to use oxen in the plough.

In 1822 or '23, I resolved to give the plan a fair trial; and, with this view, worked the oxen, and took hold of the plough-handles myself, and began in "midsummer" to break up a fallow field for wheat. For a day or two the oxen suffered greatly with the heat, in the middle of the day—but, by rising with the dawn, and resting two or three hours at noon, and also feeding on dry food, I found nearly as much was ploughed by the oxen as with the horses worked by a hired man, and quite as well done. The horses consuming about one bushel of grain per day, and the oxen none. The horses walked faster, but the oxen turned in less time, and the difference in amount of work was not very material. The oxen, though generally slower, will probably be found much the most SURE, by those who are placed under similar circumstances.

This was a "successful experiment," in every respect, and has been carried out to the letter; sanctioned also by subsequent experience and practice, for some twenty-five years. For many years there was not a furrow ploughed on the farm, except by oxen, which enabled me to begin, and to a considerable extent successfully carry out, a system of improving my nearly worn-out land. This could not have been effected (at least not by the best management I was capable of) by the use of horses alone, in any thing like the same time, or without more capital than was at my disposal.

To determine the best mode of working oxen to the plough, I used both the tongue and the chain; the latter was found preferable on all accounts. The team turns in less space, and in less time; and by it, the depth is also regulated with more facility, by merely lengthening or shortening the chain. For the use of oxen, the beam should be set rather lower than for horses—14 to 15 inches is the proper height for the former, and 17 to 18 inches for horses—the line of draft being lower in the one than the other.

Oxen, if properly broken, quite as readily, if not more so, take to and keep the furrow, than horses. We do not think of having either a line or driver, even with a double yoke, and in the plough, except when "breaking in" young cattle—the word of the ploughman, or the motion of the whip, being all-sufficient.

To judge of the capabilities of the ox, by the badly used, houseless, over-tasked, and half-fed animals we sometimes see in the yoke, is doing him great injustice. Treat the horse in the same unfeeling manner, and where would be his high mettle and noble spirit? he would speedily arrive at a premature old age, valueless to his owner, and a cast-off to feed the carrion crows. That the ox can better stand this harsh usage, is certainly no valid or sufficient reason that he should be subjected to it. Use him with equal care and humanity, and he will just as certainly, and with more profit, repay it to his owner.

I am not aware, nor do I believe, from much observation, that the "limestone land" referred to, is any more difficult to plough than mine, which is a stiff clay subsoil. Much that I have examined is easier to till. In breaking up our sward land for

corn, we generally work two yoke, and go to the depth of from 7 to 9 inches. Oats usually follow corn, in my rotation, and to render the summer ploughing easier, for the following crop of wheat, (it is also better for the oat crop, and freer from weeds,) the oat ground is *always* ploughed with the bar-share—the difference in the after ploughing is material, be the season dry, or otherwise.

In hauling limestone with oxen, we readily make a trip, of five or six miles and back, in half to three-fourths of a day; and we have made the trip to Washington and back in 24 hours—distance 20 miles—and light loads both ways, resting in the heat of the day, in warm weather.

I usually keep two yoke of oxen to one pair of horses, the first cost being generally about the same, but here the parallel ends. It costs much less to keep, and in good order too, the two yoke, than one pair of horses, and they will do more work. The expense, and wear and tear of harness is fully as 8 or 10 to 1 in favour of the oxen; and for most farm purposes, such as hauling rails, stone, fuel and manure, they are decidedly preferable. We use them exclusively for hauling hay or grain into the barn. A single yoke will readily go in with a ton to a ton and a half of hay, and at an angle on the bridge of 50 to 60. They understand the business perfectly—there is no need of the whip—at a single word, every muscle is exerted, and, if necessary, strained to the utmost. The same yoke, or a strong horse, by the aid of machinery, will unload the hay, and to any part of the mow, in from 8 to 12 minutes, according to the height to be raised, and while the hands are comparatively resting. But this is digression.

Add to the advantages above enumerated, the relative value of each team, after some five or six years' service, under humane and proper treatment, and we find that while the horse has depreciated some 33, if not 50 per cent., the ox, with a season's rest, and good pasture, is worth at least his first cost in beef; and will suppose, (but such has not been the case with me,) that the horse has paid as liberally for his keeping in the mean time.

In ploughing late in the fall, winter, or early in the spring, we usually feed our ox teams with grain, but only with half the quantity given to the horses, and then only when the work is long continued or very heavy. I have found it more satisfactory, and much more economical, to buy young cattle, say three years old, and break them ourselves, than to purchase those already broken, or *half* broken, which is more frequently the case, and not unfrequently "breachy," or with some other bad habit. Gentle treatment in breaking is quite as important as in the after-management; and they may about as readily be taught to "come under" the yoke a distance of 50 or 80 yards, as *to run away* from it, and to spend half an hour to get them yoked; taking young steers from the drove, whilst fatigued with travelling, and the breaking is much more readily accomplished.

But it is scarcely necessary to give the Doctor a dissertation on this branch of the subject, as he would doubtless (and I would so advise him at the offset) procure such as were well broken to the cart at least; to get such accustomed to the plough, and to keep the furrow, is an easy transition. Nor is it necessary, I presume, to give "a plate," or cut, to explain the mode of attaching the team to the plough—it is quite plain, and readily understood. A good, well-shaped yoke and bows are very important items—quite as important to the comfort of the ox, as is an easy-fitting shoe to the man with corns on his feet. Every sensitive feeling in my nature has at times been aroused to witness the cruel treatment this poor drudge is often subjected to. Left by unfeeling task-masters to the still more careless and unfeeling drivers, I have seen oxen compelled to draw heavy loads, with neck and shoulders galled to the quick by a badly-fashioned yoke, when the almost constant use of the whip or the goad could alone induce an onward move—when in other hands, I have seen the ox team, at a single word from the driver, spring to the draft and exert every nerve, and that willingly, too, to do his allotted duty.

If I mistake not, you have given cuts in the past volume of good yokes, both double and single. The latter we have used in working corn, but, as I am compelled to keep two horses, for the saddle and carrage, they also do this work. In the same volume are also two excellent essays on the breaking and management of oxen, to which I would refer the Doctor, should he desire more information on this important branch of rural management and economy; or, I will with pleasure give him any further information in my possession. As I am not apprized of the name of his post-office, please add it to the address, and forward to him.

I am very respectfully,

EDW'D STABLER.

We have forgotten the Doctor's exact address. His post-office is somewhere in the "valley" of Virginia—that is in that splendid farming region between the Blue Ridge and the Alleghanies, drained by the Shenandoah, embedded throughout with limestone, and ornamented and shaded with sugar-maple and locust trees. The man who has skill and capital and desires to enjoy the prospect of a beautiful farming country, and the matchless pleasure of visible improvement from his own industry and good management, need go no farther than to the Valley of Virginia, to set himself down as a farmer. As we have forgotten the address of our respected correspondent, who inquired about the use of oxen, and to whom friend Stabler requested we should send this letter—and as we are sure he will see it here, and, with us, consider it a light not to be hid "under a bushel," we take the responsibility of publishing it, as it is, and for the benefit of all our readers, anticipating their thanks for doing so, in the confidence that we shall deserve them.—*Ed. P. L. & A.*

WORK IN THE GARDEN.

What are the appointments of your garden? Are they such as your wife and daughters feel proud of, and take delight in exhibiting to their female friends and others when they visit them? If your garden be not of this description, bestir yourself and make it so this spring. You need not tell us you can't spare the time—that your hands are all so busy; for of a truth, nothing is wanting but the will to find plenty of time; and there is nothing more true, also, than that a well cultivated garden is the most profitable part of a man's farm; therefore, every agriculturist ought to make it a point of duty, as it is of interest, to have a first rate garden. It should contain a choice assortment of *vegetables*, late and early—*fruits*, as *grapes*, *raspberries*, *gooseberries*, *cr-*

roots and *strawberries;* besides these, it should contain a few *dwarf pear trees*, so placed as not to shade the vegetables; and its borders should be well studded with flowers. It should also have its hot beds and frames to grow early plants in.

Having thus sketched what should be found in every farmer's garden, we especially address ourself to you, and, with all possible deference, request you to examine your's; and if it be deficient in any thing we have named, to supply the deficiency the ensuing spring, and not to let any thing induce you to delay action till another season, as the longer you are without the enumerated appointments, the longer will you have failed to discharge your whole duty to your family.

Now let us try to point out to you such things as will require immediate attention.

Sowing Cabbage Seed.—Prepare a hot bed, between the 1st and 20th of this month, and sow a small quantity of the seed of each of the following kinds of early cabbage seed: *Early York, large York, late York, early Nonpareil, early Vanack, early Sugar Loaf* and *early Battersea.* These will ensure you a continuous supply of collards and headed cabbage throughout the summer and early fall.

Sowing Lettuce Seed.—In a corner of the same hot bed, sow a small quantity of lettuce seed, to raise plants to be set out for heading.

Radishes.—If you scatter a few radishes throughout the hot bed in which you sow your cabbage and lettuce, you will have an early supply; but, by selecting a good warm border, with a southern exposure, you may sow them in the open air as soon as the frost is out of the ground.

Celery.—As soon as the frost is out of the ground, prepare a warm border, and sow celery seed. The soil must be generously manured and finely pulverized.

Spinach.—You may sow spinach seed so soon as the frost is out of the ground. The ground must be well manured, thoroughly dug, and as thoroughly pulverized with the rake.

Parsnips, Carrots and Beets.—If you desire these roots early, put in a few rows of each, as soon as you can prepare the ground, that is as soon as the frost is out of it. Farther South, this may be done this month; here, not so soon; but every where that event must be awaited.

Peas.—This is a hardy vegetable, and may be put in whenever the ground can be labored; the sooner in, the earlier will you be able to enjoy a dish of lamb and peas. If for family use, a row or two of each of the following kinds will come in so as to afford you a continuous supply, as *Sinclair's Extra Early Prolific, Prince Albert, Early Frame, Early Charlton, Bishop's Dwarf, Royal Dwarf* and the *Marrowfat.* You may continue to sow from the first unlocking of the earth till towards the end of April. Rotten dung is the best manure.

Pot Herbs.—The seeds of these may be sown as soon as the ground can be put in good condition.

Beans.—The Mazagan, Lisbon and Windsor beans may be drilled in as soon as the ground can be made in good order. Manure with rotten manure and ashes.

Grape Vines.—Prune these without delay, and dig in around the roots—that is, in the surface as far as covered by the lateral roots—a compost composed of 6 parts rotten dung, 1 part bone dust, and 1 part ashes—the whole to be well mixed before being applied.

Raspberries.—Trim your raspberry vines and tie them up, not forgetting to dig in a good dressing of well rotted manure. As soon as the frost is out of the ground, you may plant out the vines.

Gooseberries—Currants.—Trim these about the 20th of the month, and set out the cuttings from each as soon as the frost is out of the ground. As soon as the weeds begin to start, dig in around your gooseberry and currant bushes a pretty good dressing of rotten dung, and you may calculate upon a fine crop of fruit.

Strawberry Beds.—If you desire to have fine fruit, so soon as the frost is out of the ground, dig in a good dressing of well rotted manure between the rows of your strawberry vines; take care and do not cut the roots; then rake and cover the intervals between the plants with long straw. Just as the vines are coming into bloom, give the roots a copious watering with horse dung tea, taking care not to let it fall on the flowers, and you may be assured of fine fruit. If a drought should come on while the vines are fruiting, they must be watered every other evening during its continuance, the same care being observed, as before advised, not to let the water touch the flowers of the vines. Two gallons of soot, or 3 lbs. of guano, dissolved in a barrel of water, will make a most excellent solution for the purpose.

☞As many of our readers in various parts of the country are desirous of commencing the cultivation of the grape, the following from Cist's *Advertiser*, published at Cincinnati, will be interesting and valuable to them:

CULTURE OF THE GRAPE.

CINCINNATI, Feb. 10, 1849.

DEAR SIR: At your request, I now give you the mode adopted by myself, and some others in this vicinity, in cultivating the vine for wine-making.

At the same time, I feel that it would come with greater propriety from Mr. Longworth, to whom, more than to any other man in the West, we are all indebted for our knowledge in grape culture.

Selecting and preparing the ground.—A hill side, with a southern aspect, is preferred. If the declivity is gentle, it can be drained by sodded, concave avenues; but if to steep for that, it must be benched or terraced, which is more expensive.

In the autumn and winter, dig or trench the ground with a spade all over, two feet deep, turning the surface under. The ground will be mellowed by the frosts of winter.

Planting.—Lay off the ground in rows, 3 by 6 feet; put down a stick twelve or fifteen inches long, where each vine is to grow.

The avenues shall be 10 feet wide, dividing the vineyard into squares of 120 feet. Plant at each stick two cuttings, separated 5 or 8 inches at the bottom of the hole, but joined at the top—throw a spadeful of rich vegetable mould into each hole, and let the top eye of the cutting be even with the surface of the ground, and if the matter is dry, cover with half an inch of light earth.

The cuttings should be prepared for planting by burying them in the earth immediately after pruned from the vines in the spring; and by the latter end of March, or early in April, which is the right time for planting, the buds will be swelled so as to make them strike root with great certainty. Cut off close to the joint at the lower end, and about an inch in all above the upper.

Pruning.—The first year after planting, cut the vines down to a single eye, (some leave two;) the second, leave two or three; and the third, three or

four.—After the first year, a stake 6½ or 7 feet long must be driven firmly down by each plant, to which the vines must be kept neatly tied with willow or straw as they grow. Late in February, or early in March, is the right time for spring pruning in this climate.

Summer pruning consists in breaking off the lateral sprouts and shoots, so as to leave two strong and thrifty canes or vines—one of which is to bear fruit the ensuing season, and the other to be cut down in spring pruning to a spur to produce new shoots. These may be let to run to the top of the stakes, and trained from one to the other, until the wood is matured, say in August or September, when the green ends may be broken off. One of these vines is selected next spring for bearing fruit, and cut down to four to six joints, and bent over and fastened to the stake in the form of a bow. The other is cut away, as well as the fruit-bearing wood of the last year, leaving spurs to throw out new wood for the next, and thus keeping the vine down to within 1½ to 2 feet of the ground. Nip off the ends of the fruit bearing branches two or three joints beyond the bunches of grapes, but do not take off any leaves.

If both the cuttings grow, take one up, or cut it off under ground, as but one vine should be left to each stake.

Culture.—The vineyard must be kept perfectly clean from weeds and grass, and hoed two or three times during the season. Keep the grass in the avenues around, down close. About every third year put in manure, by a trench the width of a spade, and three or four inches deep, just above and near each row; fill in with two or three inches of manure and cover up with earth.

Wine making.—Gather the grapes when very ripe, pick off the unsound and unripe berries. The bunches are then mashed in a mashing tub, or pressed through a small mill, breaking the skin but not the seed, and thrown into the press, and the screw applied until the skins are pressed dry.

Fermentation.—This process is very simple. The juice is put into clean casks in a cool cellar, and the casks filled within about four or five inches of the bung, and the bung put on loosely. The gas escapes, but the wine does not run over. In from two to four weeks, generally, the fermentation ceases, and the wine clears; then fill up the casks and tighten the bungs. In February or March, rack off into clear casks. In the spring, a moderate fermentation will again take place; after that, the wine fines itself, and is ready for bottling or barreling. Use no *brandy* or *sugar*, if the grapes are sound and well ripened. Keep bunged up or corked tight, and in a cool cellar, and the wine will improve by age for many years.

R. BUCHANAN.

MR. CHARLES CIST.

STATISTICS.

Cost of my vineyard of six acres—fourteen thousand four hundred vines:

Trenching, two feet deep, $65 per acre -	$390 00
Sodding avenues - - - - - - - - - - - -	60 00
Cost of 30,000 cuttings, at $2 50 per thousand - - - - - - - - - - - - - - - -	75 00
Planting - - - - - - - - - - - - - - - -	70 00
Fourteen thousand five hundred locust stakes, at $3 per hundred - - - - - - - -	435 00
Setting 14,500 stakes - - - - - - - - - -	55 00
	$1,085 00

Cost of attending the first year—vine dresser $216, and a hand for one month, $15 - - - - - - - - - - - - - - - - - - $231 00

Second year—vine dresser $316, and a hand for two months, at $15 per month 256 00

Cuttings after first year, to replace failures, say - - - - - - - - - - - - - - - 20 00

Hauling, carting, &c - - - - - - - - - - - - 60 00

Contingencies, &c - - - - - - - - - - - - - 150 00

Average cost, say $300 per acre - - - - - - $1,800 00

The third year the vines will produce grapes enough to pay the expense of that year—generally more.

For the fourth year, and a series of eight or ten years in succession, the experience of the past would indicate the following calculation to be something like a fair one:

Say six acres, average 250 gallon, at rates heretofore, $1 per gallon - - - - - - - -	$1,500 00
Deduct cost of vine dresser per annum	$240
Assistance, hoeing, &c - - - - - - - -	60
Gathering grapes and pressing - - -	150
	450 00
Net profit per annum - - - - - - - - - - -	$1,050 00

To attain this, the vineyard must be favorably situated, and well attended by a competent vine dresser, and free from the disastrous visitation of the rot.

Vine culture in this vicinity.—It is estimated that over three hundred acres are now planted with the vine, within a circuit twelve miles round Cincinnati; nearly two-thirds of which were in bearing last year, producing notwithstanding the rot, so injurious to man, about 50,000 to 60,000 gallons of wine.

The Catawba is our *great* wine grape, and principally cultivated. The Isabella is not profitable for wine, and is only used for table use.

Mr. Longworth, with unwearied zeal and liberality, is still experimenting with new varieties, and may yet find a rival for the Catawba.

R. BUCHANAN.

MR. CHARLES CIST.

N. B. Some vineyards, in good seasons, have produced at the rate of 600 to 800 gallons to the acre; but this is rare. The usual yield is 300 to 400 gallons, where there is but little rot. A bushel of grapes, if well ripened, will produce three and a half to four gallons of wine.

By proper economy, a man may have a vineyard of several acres in a few years, without feeling the expense to be burdensome. Commence by trenching one acre in the winter, and planting it out in the spring; next year another acre, and so on, for five or six years. After the first year, he will have his own cuttings from the first acre, and also grapes enough to pay for the cost of planting the succeeding additions to his vineyard.

If he has suitable timber on his own land, the stakes can be got out in the winter with but little outlay in money. By this course, the cost of a vineyard of six acres would not be half as much as mine.

Some prefer planting in rows, four by five—others, four and a half by four and a half; and on level land, three and a half by six, or even seven feet.

I have merely given, in the foregoing remarks, the course pursued by myself and some of my neighbors, without pretending that it is preferable to others.

R. B.

To the Legislature of Maryland.

THE Farmers of Maryland appeal to the Legislature of the State for protection and relief in a cause of deep interest to them individually, and, in a politico-economical view, of the greatest importance to the community at large.

It must be well known to all, that the soil, climate and geographical position of Maryland, fit it equally with any other part of the country to the breeding and rearing of Sheep, both as a part of a general and mixed husbandry, and, in certain locations, as a separate and distinct branch of industrial pursuit. No variety of herbage suitable for their support but grows with us spontaneously, or with the least possible amount of care and cultivation;—our climate, temperate in its general character, gives us a long period of vegetable growth, and a correspondingly brief winter, thus contrasting strikingly with that of other States where Sheep raising is eminently successful;—and our geographical position, as a Middle State, abundantly supplied with the water power necessary for the manufacture of woollen fabrics, and for any surplus production equally well supplied with the facilities for transporting it to any quarter of the world, gives to us advantages of great value in the estimate to be made of this branch of agriculture.

In order to arrive at a right judgment with reference to this subject, attention is invited to a few of the statistics belonging to it. From the most accurate sources of information it is computed that there are now in the United States at least thirty millions of Sheep, producing an average clip of two and three quarters pounds of wool to each sheep, equal to a gross production of 82,500,000 lbs. This amount is short of the annual consumption of the country by at least 10,000,000 lbs., which is supplied by importation from foreign sources; and the increase of population is so great that there is no prospect that the supply will equal the demand for many years to come. At thirty cents per pound, which is less than the average price of the last ten years, the money value of this item is $24,750,000 per annum. But large as these figures are, the value of wool growing may be further illustrated by considering the incidental benefits arising out the woolen manufacture. According to the data furnished by the census of 1840, there cannot be less than 67,000 persons now engaged in the manufacture of woollen goods. Supposing an average of three persons to be depending for support on each one of these, there will be 210,000 people, consumers of other agricultural products, who furnish the farmer with a home market. In beef, pork, flour, butter, cheese, milk, eggs, wood, &c. &c. these will each consume at least fifty cents per week, making an aggregate of $105,000 per week, or $5,460,000 a year. These few facts are strongly illustrative of the general value of Sheep Husbandry, and its profitableness to the country at large. A few more figures will show how little participation Maryland has in it, with all her advantages. Taking the States North and West of us where Sheep are at all attended to, say the States of Maine, Vermont, N. Hampshire, Connecticut, Massachusetts, R. Island, N. York, N. Jersey, Pennsylvania, Kentucky and Ohio, we find that they possess an average of fifty-seven sheep to each square mile of their geographical area,—whilst Maryland, more favored than most of them in natural adaptation to this husbandry, has but twenty-three sheep to the square mile. As we have a geographical area of 10,755 square miles, if sheep husbandry was so fostered and encouraged as to bring our number to the average of the above named States, we should have 365,670 sheep more than we now have, which in the value of the wool alone, would give us annually an addition of $301,677,75 to the productive wealth of the State. These figures will not appear large when it is considered that a single county near us in Pennsylvania, Washington County, has realized from one year's clip, $487,500. It is not, however, only by the money value of the wool produced that the benefits to the State are to be estimated. In the production of food the increase of a flock is nearly equal in value to the wool sheared, and this almost doubles the sum before set down;—in the growth among us of factories, we provide employment for our people, and as these must be fed, we create a home market in our midst for a large amount of agricultural produce, besides adding in other respects to the prosperity of the State; and in the encouragement of a system of mixed husbandry, of which the breeding of stock forms a conspicuous part, we increase our resources and the fertility of our land, by the larger production of manures, and by the ameliorating influence which ever results from stock husbandry of all kinds.

Why then are we deprived of these benefits, and what is it that so discourages the keeping of sheep among us? If the question be addressed to farmers, the answer will be prompt and unanimous, that the excessive number of dogs forbids it. It is folly under such circumstances to make the trial upon the commonest stock, and still greater folly to expend money in the introduction of the valuable improved breeds, which are so conspicuous in other States than our own. And yet no one will pretend to say, that the State receives any countervailing benefit from the thousands of dogs which overrun the country, and it would be easy to demonstrate that in other points of view, the multiplicity of dogs among us is an evil leading to great idleness and waste of time on the part of those who can least afford it. In reasonable numbers, dogs are useful and should be preserved and protected, but just in proportion as they are useful they are worth being paid for and attended to. To the ownership of a dog a value should be attached, and it should bring with it a responsibility which would insure watchfulness and care on the part of the owner that his dog does no injury. This is the condition of the Law in most of the States in which Sheep raising is successfully practiced, as will be seen from the following brief abstract of their legislation:

NEW YORK.—Upon every bitch over three months old a tax of two dollars; upon every additional bitch, five dollars. Upon every two dogs of six months, or more, old, kept by the same person, one dollar; upon every dog, more than two, three dollars. The assessors to take a list of dogs in making their assessment. The owner or possessor of any dog refusing to give an account of him, or giving a false one, to be fined five dollars. Same remedies to collect this tax as any other. Upon refusal to pay the tax by the person assessed, the dog may be killed. The taxes so collected in each county, to constitute a fund for paying losses of sheep by dogs in any one year in that county, and the residue for the use of the poor. The owner of any dog that shall kill any sheep, shall be liable for the value of such sheep to the owner thereof without giving notice to the owner of such dog, or knowledge by him that his dog was mischievous or disposed to kill sheep. Any person may kill any dog found worrying or chasing sheep. Notice being given to the owner that his dog chases or worries sheep he shall kill him within forty-eight hours; for neglect to do so he shall forfeit two dollars and a half, and for every forty-eight hours thereafter the further sum of one dollar and twenty five cents, till the dog be killed, unless it shall be satisfactorily proven to the court before which suit for the penalty shall be brought, that it was not in the owner's power to kill such dog. Every person in possession of any dog, or who shall suffer any dog to remain about his house for the space of twenty days previous to the assessment of a tax, or previous to any injury, chasing, or worrying of sheep, shall be deemed the owner of such dog for the purposes of this act.

MAINE.—Owners liable for injuries to sheep.—If after notice that the dog is mischievous, the owner is liable to treble damages and costs.

CONNECTICUT.—Owners or keepers liable for damages to sheep by dogs. If he be a minor, then his parents or guardians, if an apprentice, his master shall pay the damage. Any two justices of the peace of a town, may make rules and regulations for the confining, restraining, killing or destroying dogs, whenever they shall judge that the inhabitants or their property are in danger from them, and any person refusing to obey them shall forfeit seven dollars, one-half to the prosecutor and the other to the town; and all dogs not restrained according to such rules may be killed. Every dog going at large shall wear a collar with the owner's name and residence legibly inscribed thereon, and any dog found at large, without such collar shall be killed. Towns may tax dogs to the extent of one dollar, and if owner refuse to pay it, duty of collector to kill the dog, and any other person may kill such dog.

MASSACHUSETTS.—Dogs to have collars with name and residence of owner. Found at large without collar may be killed. Upon notice to owner that his dog is mischievous or dangerous he must kill him or confine him under penalty of ten dollars. If after such notice the dog be not killed or confined, and be found out of the enclosure and care of his owner, he may be killed. If after such notice he kill sheep the owner is liable to treble damages and costs.

RHODE ISLAND.—Owners of dogs killing sheep liable for such damage and costs. For a second offence owner liable to double damages and costs, and the court before which recovery is had shall order the dog to be killed.

NEW JERSEY.—Every person keeping a dog or bitch over six months old shall be taxed fifty cents per annum for one, and for every additional dog or bitch over six months old, one dollar. Tax assessed and collected by the assessor and collectors for State and County taxes. Power to each township to lay an additional tax not exceeding five dollars. Same fees as for collecting other taxes. Every inhabitant who shall refuse to deliver a true account of the number and age of his dogs forfeits two dollars and fifty cents to be recovered with costs by the collector of the township to and for the benefit of the township. Any person keeping or harboring a dog liable for the tax. Tax may be stricken off upon satisfactory proof to the assessor by the owner that he has killed or caused to be killed his dog. Assessors obliged to set up a list of persons taxed for dogs in five of the most conspicuous places in their respective townships, and is allowed one dollar and fifty cents for that service.

OHIO.—Owners liable for injury done by dogs to sheep.

DELAWARE.—Owners of dogs liable for injury to sheep. Lawful to kill any dog or slut running at large without having a collar with owner's name legibly inscribed thereon.

PENNSYLVANIA.—Dogs subject to taxation, and penalties imposed on persons evading the tax. Any dog not returned to assessors may be killed. Proceeds of tax form a fund for repaying losses of sheep by dogs.

Maryland also has legislated upon this subject, but her legislation begins at the wrong end of the matter by merely authorising the offending dogs to be killed after it shall have been proven that they have killed sheep, (1827 ch. 199—1831 ch. 169.) This, it is respectfully submitted, is wholly inadequate for our protection. To give us effectual relief we want such legislation as will reduce the number of dogs to the number actually needed for useful purposes; and this reduction can only be effected by a tax which will have the effect of getting rid of all dogs whose owners do not think them worth the tax. We want this tax assessed and collected upon such a system of strict accountability, both on the part of the dog owner and the tax collector, as to insure that every dog in the State shall be taxed and the tax collected and accounted for. We want every dog to be distinctly marked with his owner's name and residence, so that all injuries done by him may be charged against his owner, who shall be held responsible for them.

Surely there is nothing unreasonable in this—nothing which a right minded and honest man ought to hesitate a moment about. The farmers of Maryland have not been prone to ask the legislature for protection laws, and they have never brought forward a subject whose interest is half so general or whose importance is half so great. In this they only ask protection for their property, and from a just and enlightened body they ought not to ask in vain.

METEOROLOGICAL TABLE,

From the 20th of December to the 21st of January.

Kept at Schellman Hall, near Sykesville, Carroll County, Md.

Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock.

	Wind.		Temperature			Remarks.
21	w	w	35	43	30	Clear
22	s	sw	35	39	35	Rain 1⅛ in., cloudy
23	nw	ne	29	33	31	Clear, cloudy, snow
24	w	nw	32	35	31	Snow, 1-10 in., cloudy
25	w	nw	18	19	19	Strong wind, clear
26	se	se	5	17	19	Clear, cloudy
27	sw	sw	23	43	37	Clear
28	w	se	30	42	36	Clear cloudy,
29	se	w	sw	32	39	39	Rain 1 in., sleet, clear
30	w	w	w	30	33	27	Cloudy, snow 4 in
31	w	nw	nw	14	24	15	Clear
1	nw	w	w	30°	23	15	Clear
2	w	sw	se	9	29	26	Cloudy
3	w	sw	s	20	35	30	Cloudy
4	w	w	w	26	38	35	Cloudy
5	w	w	w	15	29	17	Clear
6	nw	se	w	15	29	26	Cloudy
7	ne	ne	s	25	34	30	Cloudy, rain 1 in.
8	sw	sw	se	32	36	34	Clear, cloudy, rain 1-10 in.
9	s	sw	sw	31	36	33	Foz, cloudy, clear
10	w	sw	se	30	43	33	Clear
11	se	s	s	41	49	44	Rain 1 2-8 in., fog
12	w	w	w	42	43	43	Clear
13	w	e	ne	32	33	25	Clear, cloudy, snow
14	ne	nw	nw	20	29	20	Snow, 14 in., clear
15	s	sw	sw	0	37	21	Clear
16	w	w	s	33	46	33	Cloudy, clear
17	e	e	s	30	38	35	Cloudy, fog
18	s	s	nw	32	39	36	Cloudy, rain ½ in. cloudy, clear
19	w	nw	w	30	35	30	Clear
20	sw	se	se	18	34	30	Clear, cloudy, snow, hail, rain

REVIEW OF THE TOBACCO & GRAIN MARKETS.

Reported for the American Farmer by J. W. & E. Reynolds.

In consequence of the very limited supply of Tobacco now in first hands here, transactions for this month have been small; but prices for the common descriptions of Md. Tobacco, which are wanted to supply the deficiency in the crops of Kentucky and Virginia, have advanced fully 25 cents per hundred lbs.—while the good and fine descriptions sell readily, but at the rates quoted in our last. We are of opinion that prices for the common qualities may continue to advance, in consequence of the smallness of the crops of Virginia and Kentucky raised the past two years, but the finer qualities will not in our opinion, advance in the same ratio as the common. We quote sales of good and fine $6 to $9—Extra do. $10 to $12—Middling, $5 to $5½—Common, $3½ to $4½—Stems $2 to $2½. Red Wheat, $1.08 to $1.10—White, $1.10 to $1.18—Rye 56 to 58—White, corn, 50 to 52—Yellow, corn, 53 to 55—Oats, 34 to 35c.

Guano.—Peruvian, $43 per ton of 2000 lbs.—Patagonian, $35—Chilian, $29.

Cloverseed, $4.75 to $5, per bushel, by retail—Timothy seed, $3.25 to $3.50 do. *Cattle.*—The offerings at the scales on Monday, reached 800 head of Beeves, of which 200 were sold to packers, 460 to city butchers, 50 were left over unsold, and 90 were driven to Philadelphia. Prices ranged from $2 to $3.75 on the hoof, equal to $4a$7.25 net, and averaging $3 gross. *Hogs*—We quote the market brisk at $5.25 to $5.50. *Flour*,—Howard-st. sales at $5.81—City Mills, firm at $5. *Cotton* firm, the advices from Europe are considered decidedly favorable. *Coffee*, is on the rise—a rise in the European market, has had the effect of increasing the price here—Rio, last sales 15c. but holders afterwards refused that price, and ask 16c. *Whiskey*, in bbls. 26 a 26½c., in hhds. 25a 25½c. In Provisions, there is an improved feeling, for bulk Meats, and Lard is a shade better.

TOBACCO IN EUROPE.—By late arrivals, the following letters have been received:

"*Liverpool, Jan.* 11, 1850.

"*Tobacco*—During the past month there has been a good demand, the sales amounting to 1908 hhds. against an import of 1383 hhds. The exports have been 129 hhds. Stock in the warehouse on 31st December, 16,355 hhds. against 16,119 hhds. same time 1848. We quote Virginia, good to fine and stemmed, 5¼a6½d, ordinary to middling 4¼a5d; Kentucky leaf 3¾a5½, stemmed 4¼a 8¼d."

Liverpool, Dec. 26, 1849.

THE TOBACCO CONTRACTS OF FRANCE.

"The contracts for the supply of American Tobacco to the French Gevernment took place in Paris, on the 20th ult., and was taken as follows:—

Kil.				*f.*	*c.*
1,800,000	Virginia,	to Pescatore,	a	108	89
1,900,000	Maryland,	to do	a	98	75
2,240,000	Kentucky,	to Cor,	a	85	14
400,000	Macedonia,	to Perrin,	a	96	75
100,000	Greek,	to Zizinia,	a	83	75
200,000	Havana,	to Zangroniz,	a	249	96
100,000	Java,	to Rothschild,	a	262	50
150,000	Brazil,	to Pescatore,	a	172	00
150,000	Paraguay,	not taken.			

"How they are to fill these contracts, to make anything, I am at a loss to conceive, with about half crops grown in the United States, and an advance of 30 to 150 per ct. upon the prices in the tobacco markets of the United States, and in all the continental market prices advancing."

THE MORGAN HORSE.—*A Valuable Acquisition to our State.*—We learn that Col. *C. Carroll*, of the Manor, Howard District, has succeeded in purchasing, at a very high figure, one of the finest Morgan breed of horses to be found in New England—a more particular description of which we will give in our next. He is to stand the ensuing season at the residence of Col. C. and to be limited to 30 mares. We advise those wishing to put their mares to this horse, to lose no time in making application to Col. C. at Ellicott's Mills, Md. He is 15½ hands and ½ an inch high, 4 years old next July, jet black, of lofty carriage, and trots his mile without training, at this age, in 3 minutes.

BONE DUST.

THE subscriber is prepared to furnish Ground Bones, at short notice, at his establishment, at Canton, opposite Brines' Distillery, below the race course, or orders can be left at his residence, corner of Happy Alley and Eastern Avenue. A sample is left at the Agricultural Society's hall, where it will be shown by the editor of the American Farmer, with whom orders can be left. Col. W. W. W. Bowie, of Prince George's, who has used it, writes as follows; "I was highly pleased with your bone dust; that at 50 cts. per bushel was the best I ever saw; that at 35 cts. was very fair for the price.

feb1-1t* JOSHUA HORNER.

LAND FOR SALE.

THE subscriber offers for sale THREE HUNDRED ACRES of Land, in Westmoreland county, Virginia. This land lies immediately upon the Nomoni river, is of good soil, and possesses every possible advantage for improvement. Upon the farm upon which the subscriber resides, there is an inexhaustible deposite of oyster shells, to which the purchaser will have free access for all purposes of manuring; and the distance to haul the shells would not exceed one and a half miles to the farthest portion of his land. There is a plenty of Woodland attached for all purposes of the farm, and an abundance of scrap wood, to burn lime enough to manure the whole body of arable land.

There are "no improvements" upon the premises, but a most beautiful situation for a dwelling. This situation is remarkably healthy—much more so than is usually the case in the "tide water" section of Virginia. Terms, $3,000, with any indulgence, by securing the money, and paying interest. *All communications post paid.* Address

LANDON C. BERKELEY.

Rice's Store P. O., West. Co., Va. d1-4t.

Kettlewell & Davison's Agricultural Depot.

RENOVATOR OR FERTILIZING SALTS.

"It seems to me that manures thus compounded, (as fertilisers,) may answer the purpose of restoring to the soil, all the organic materials removed from it by *vegetation*. But the purchaser should have entire faith in the integrity of the compounder, who has every opportunity, and much temptation to impose an inferior article upon him. After all, it is very questionable, whether the intelligent farmer ought not to be his own compounder of artificial manures."
—*Address of Senator Pearce, before the Maryland Agricultural State Society.*

In our former advertisement, we announced to the Farmers of Maryland, and elsewhere, that we had established in the city of Baltimore, an *Agricultural Depot*, for the sale of simple and compound chemical manures. In again asking their patronage, we cannot refrain from expressing our unaffected gratitude, not only for the generous support which they have extended towards us, but for the personal faith and confidence, equally manifested to us, and our enterprise. Duting the past season we found ready sale for every barrel we could manufacture. We have therefore nothing to complain of—no one to find fault with—no invidious or dishonorable insinuations to make. No appeal but the mutual interest of the farmer and our own. On the contrary, with such a field, and in such a cause, we would rather invite honorable competition, and the most elaborate enquiry.

Of the convenience, if not the necessity of such an undertaking at the present crisis in agricultural history to the farmer, fairly and honestly conducted, is a question we submit to his own interest, and judgment. We have embarked in the enterprise with earnestness, we hope with capacity, certainly with zeal; and no discouragement shall paralyse our efforts, confident as we are, that time will convince both the distrustful and the prejudiced of the great advantage it must prove to the farming interest. We have gone on in good faith to complete our object. We have erected an extensive Plaister Mill, and knowing the almost incredible discrepancy in the quality of this article, we have exercised great care in the purchase of the lump; so that the farmer would be certain to get what he paid for. Every barrel of our *Ground Plaister* will pe branded with our own name, and those who want ours, and buy through agencies, should specify that fact, or else they may be disappointed.

We have also in operation the most complete Bone Mill in the country; to guard against the adulteration of an article which it is worse than idle to say, has not been adulterated.

We will also buy Guano at a commission of 5 per cent. cash forwarded, anylize it, and transmit the result with the invoice.

But to leave no doubt upon the public mind that we are in earnest, and determined to carry out what we have begun, we have independent of our own compound, the *Renovator* (now a standard manure) accepted the proposition of Senator Pearce in his Agricultural address in Baltimore, a quotation from which will be found at the head of this advertisement, and now offer the following Agricultural Chemical Residiums for sale in quantities to suit purchasers.

100 casks crude Pot Ash, suitable for agricultural purposes.
30 " Sulphate of Soda.
100 tons Residium for making Prussiate of Pot Ash.
50 barrels Sulphate of Ammonia.
4000 bushels of Bone dust.
Oil of Vitriol.
50 casks Bi-phosphate of Lime.
4000 barrels ground Plaister.
500 " ground Oyster Shells, not calcined,

besides various other residiums! We also manufacture different compounds, Bi-phosphates, &c., to supply deficiencies in the soil, when tested by analitical investigation. Various experiments which we have made to order for this purpose, have resulted most satisfactorily; and without introducing names, we hold ourselves prepared to refer to the parties, some of whom are the most distinguished in the state, if applied to by letter or otherwise, for the success which has attended these experiments. The chemical residiums we have named, with other materials, make the compound of our Renovator. We have evidence to show that as a prompt, lasting manure, it is without a rival, except, perhaps lime, to which in permanent improvement to the soil it is only subordinate, but far more active; nor is there any other description, quality considered, so cheap. The mere cost of putting barn-yard manure upon the land, even if the manure was a gift, is more expensive than the use of our Chemical Fertilizing Salts. As a *top-dressing* upon Wheat, Rye, Timothy or Clover, we challenge any other manure, upon the most authentic testimony, to surpass it.—If any farmer who doubts, will only make the experiment, he will be skeptical no longer. The *ammonia* being fixed, or a sulphate, sinks into the earth and gives life to the plant at once. We therefore repeat, let any one who questions, who has an unpromising spring crop, that a chemical concentration of fertilizing elements, can in so small a quantity as *One Barrel to the Acre*, render but little service, try but the single barrel this spring, as a top dressing, and he will acknowledge a discovery as important to himself as it is to us. We are daily receiving the most satisfactory evidence of its value and success. One gentleman, and an accomplished farmer, who used it last June upon the surface of the Corn hill, where, in consequence of the drought, the Salts remained undissolved, was dissatisfied with its action upon the corn, but he subsequently sowed the field in rye before the corn was cropped, and he now informs us, that as far as the eye can reach, each hill can be counted where the grain has grown up in matted luxuriance.

This was an accidental experiment, one that the most skilful and adroit would scarcely have thought of making, and yet a demonstration conclusive beyond all cavil, and so effectual as to satisfy the entire neighborhood. Its application also produces a green moss, similar to the action of lime. In the spring we will add largely to the testimony we have heretofore, published embracing the certificates of Col. Capron, F. P. Blair, Esq., John and Carville Stansbury, Esqs., N. C. Dickerson, Esq., of Montgomery.

The Price of our Renovator or Fertilizing Salts,

is $3 per barrel of 300 lbs. or $20 per ton; on or over fifty barrels, satisfactory time will be given for city paper, or acceptances elsewhere—to be had at our FACTORY, HAMBURG STREET, FEDERAL HILL, or at our OFFICE at the Wholesale Drug Store, (DOWN STAIRS,) of Messrs. OBER & McCONKEY, CORNER OF HANOVER AND LOMBARD STREETS.

At the proper time we will introduce our TOBACCO GENERATOR, made expressly for the growth of this plant.

f1 KETTLEWELL & DAVISON.

GARDENER.—The subscriber, a Practical Farmer & Gardener, understanding the management of Fruit Trees, Grape Vines, Forcing, and Mechanic enough to manufacture his own hot bed sash, &c., is desirous of obtaining a permanent situation as Gardener, Overseer, or Manager of an Estate—no objection to going South. Address

feb1* MR. FRANCIS, Sun Office, Baltimore.

To Farmers and Planters.

THE New and Improved Poudrette of "The Lodi Manufacturing Co." is offered for sale the present season at the following rates, viz.—1 barrel, $2; 3 barrels, $5; and at the rate of $1 50 per barrel, for any quantity over 6 barrels. Delivered free from charge for barrels, cartage, or other expense, on board of vessels in the City of New York.

☞ *This article, made from night soil,* into a light dry and inodorous *powder, is the cheapest and most powerful manure in the world for corn or tobacco. Two barrels,* ($3 *worth,*) *will manure an acre of corn in the hill,* and will bring a heavier crop than can be obtained in any other way.

A pamphlet containing instructions for use, certificates from some of the first Agriculturists in the United States, and much valuable information, will be sent *gratis,* to any applying (*post paid* if by letter) to "The Lodi Manufacturing Co., 66 Dey street, New York." f1-3t

FOR FALL AND WINTER USE.

R. SINCLAIR, Jr. & Co.

No. 62, LIGHT STREET, BALTIMORE,

OFFER FOR SALE, the following *IMPROVED MACHINERY*—viz:

Sinclair & Co's CYLINDRICAL STRAW CUTTERS—*warranted*—the most perfect machine of the kind in this country—there are 4 sizes made and constructed, both for manual and horse power.

Sinclair & Co's CORN STALK CUTTERS with Lacerators attached, which reduce the stalk and fodder to the finest state for stall feeding.

Common STRAW Cutters of various sorts and at low prices.

Sinclair & Co's VIRGINIA CORN SHELLERS, made to be worked by hand or horse power; capacity 1000 bush. pr. day.

Sinclair & Co's Columbiad, Goldsborough, and Atlee CORN SHELLERS, for horse power—capacity 1000 to 1500 bushels per day.

Sinclair & Co's Eagle Corn Shellers, made with single and double spouts, for hand power—capacity 150 to 250 bushels.

Sinclair & Co's single and double Iron spout Corn Shellers,—a new and excellent machine for hand power—capacity same as the Eagle.

Sinclair & Co's CORN & COB CRUSHERS—a most valuable and perfect machine, price $30, and capacity 80 bushels per day. ☞ This machine is also admirably adapted for crushing corn, oats, &c. for stall feeding.

Sinclair & Co's HORSE POWERS, 4 sizes, and made for 1 or 12 horse power.

Sinclair & Co's Rail way or Endless Chain Powers, made with late valuable improvements.

Sinclair & Co's Improved Threshing Machines, 4 sizes.

—ALSO—

Wheat Screens, Corn and Wheat Fanning Mills, Field Rollers, Clover threshing and cleaning machines, Plows for flushing, seeding, &c. A large and superior assortment Sausage Cutters and Stuffers, Plow and Machine Castings, and in store almost every Plow, Agricultural Machine and Tool wanted by the farmer. The assortment of

FIELD AND GARDEN SEEDS,

Now in store, is not surpassed for extent, variety or quality, by any seed establishment in this country.

SINCLAIR & CO.

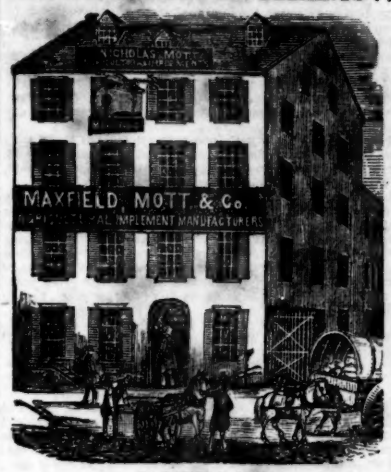
Agricultural Implement Makers and Seedsmen.

☞ The Wheat Fan we now make has undergone very important improvements, and so constructed that they not only chaff with great rapidity, but cleanse the wheat entirely from all weed seeds, and put it in the finest order for market or seed.

NORTH-WESTERN REPOSITORY!

OF

AGRICULTURAL IMPLEMENTS!!



NOTICE!!

HAVING attended several County Fairs, and also the great State Fair, we deem it our duty to notify the farmers generally, of the success with which we have met, and in order that they may not be deceived in supposing that we attended those in which our name was not mentioned—we will, therefore, name those at which we were present, viz:

1st—The Montgomery Co. Fair, held *September*, 1849.
2d—The State Fair, held in Baltimore, October, 1849.
3d—The Talbot Co. Fair, held in Easton, Oct. & Nov. 1849.

LIST OF PREMIUMS RECEIVED.

1st Premium of $20, for best display of Implements.
1st do for best constructed plough, both 1 and 2 horse.
1st do do Ploughing.
1st do do Straw Cutter.
1st do do Cultivator—something new.
1st do do Harrow.
1st do do Fans.

Being experienced men in the various practical parts of the business, we think ourselves well qualified to give satisfaction—we warrant our work to be of the best materials and workmanship, and only request a call, in order to convince the farmer of the truth of the assertion.

☞ All orders promptly attended to, and Implements delivered to any part of the city free of charge.

MAXFIELD, MOTT & CO.
No. 97 North Paca street, Baltimore.

CORN SHELLERS—CORN SHELLERS.

MAXFIELD MOTT & CO. call the attention of the farmers to their large and extensive stock of CORN SHELLERS, of various patterns and capacities, which they will be pleased to furnish on the most reasonable terms.

MAXFIELD, MOTT & CO.
jan1 No. 97 North Paca st., 3 doors S. of Franklin, Balt.

STRAW CUTTERS.

SMITH'S new and superior STRAW CUTTER, which, for durability, simplicity and price, cannot be surpassed. Also, the Cylindrical Box, for cutting straw, hay or fodder, so favorably known to the public. Kept constantly on hand by

jan1 MAXFIELD, MOTT & CO.

HAVING completed our arrangements with several of the best Nurseries in the country, we are now prepared to furnish both Fruit and Ornamental TREES, of the most choice and select varieties.

All orders for Trees of any description promptly attended to.

MAXFIELD, MOTT & CO.
Ja1 No. 97 North Paca st., 3 doors south of Franklin.

FOR SALE—100 bushels of BONE SHAVINGS—by

R. BALL,
feb1-4t East Falls Avenue, near the Bridge, Baltimore.

"CHAPPELL'S FERTILIZER."

EXPERIENCE has shown that this article should be applied *early*, as a top-dressing, on Wheat, Clover, &c., from January to middle of March, before the land closes in the spring, and also to have the advantage of the *early rains*. If applied in this way, the increased yield of grain will fully or more than repay for the outlay, besides the additional clover secured by its use.

Farmers who have "winter-ploughed" their land, preparatory to a second ploughing in the spring, for corn or oats, will find it to their advantage to apply a *full dressing* of the "Fertilizer." If applied early, they secure the solution of the salt in the earth, and thus avoid the danger, to some extent, of a dry season.

I have received very satisfactory accounts from those who used it on *wheat*, this season; the indications, so far, are very favorable for a *large increased yield*, ascertained in many cases, by leaving "*a land*;" *the difference* is very perceptible.

I am prepared to furnish orders for the article, as faithfully as ever; and, having increased my facilities for obtaining the materials out of which it is compounded, and improved machinery, to secure a finer division of the particles (thus making them more soluble), I consider the article to be "better than ever," and, under "circumstances" favorable to the action of *guano or any other manure*, it can be applied with *great profit* to any crop, and as *universally* as any other manure, to any soil.

P. S. CHAPPELL,

Office (up stairs), Corner of Hanover and Lombard sts.

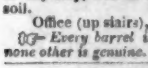
☞ *Every barrel is stenciled* "CHAPPELL'S FERTILIZER;" *none other is genuine.* jan1

TO MILLERS.

FROST & MUNROE'S BRAN DUSTER.

BY the use of one of these Dusters, there can be from 2 to 4 barrels additional of flour saved in each hundred ground. Certificates, from different mills, of its utility can be obtained. Millers wanting one of the above valuable machines, can be supplied at short notice, and, in every case, satisfaction is *warranted*. Price, $150 to $300, according to size. For further information, address the subscriber, or call at No. 80 Light street wharf, Baltimore.

N. B. State and County Rights for sale—a rare chance for speculation. [jan1 WM. A. WRIGHT, Proprietor.



PLOUGHS! PLOUGHS!!

The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also, THRESHING MACHINES and HORSE POWERS—these latter are used by the following gentlemen, to whom reference is made, as to their superior value, viz: Messrs. T. Beard, The Beard, Dr. Watkins, J. T. Hodges, T. Welsh, W. Mackall, J. Inglehart, A. Sellman, R. Sellman, W. Hopkins, J. Kent, Geo. Wells, Geo. Gale, Dr. Fenwick, A. Franklin, J. C. Weems, of Anne Arundel county; G. W. Weems, J. T. Barber, R. B. Chew, W. Boswell, Y. Howes, of Calvert co., Md. Agent of Evans Davis, Baltimore co. for sale of the woodcock Plow. Pennsylvania Grain Cradles. CHAS. H. DRURY.

Gillingham Alley, entrance from Howard-st., near Pratt, and store, Hollingsworth-st. corner Pratt. ma1

Baltimore Fire Insurance Company.

No. 24 South Street, Baltimore.

THIS old established Company (incorporated by the legislature of Maryland, 1807,) continues to *INSURE AGAINST LOSS OR DAMAGE BY FIRE*, in the city or country, on the various descriptions of property: On Farms, Barns, Granaries, &c.—on Dwelling Houses, Storehouses and Warehouses,—on Merchandize—on Country Produce—on Household Furniture—on Vessels Building, on Vessels in Port, and on Cargoes, &c. &c.

The Board of Directors is composed of the following gentlemen: J. I. COHEN, Jr., President.

William Frick,	David S. Wilson,
Robert A. Taylor,	Wm. F. Worthington,
William G. Harrison,	Jas. A. Sangston,
Samuel T. Thompson,	William Gilmor,
George R. Vickers,	J. Pennington,
F. W. Alricks,	Joseph King, Jr.
S. Owings Hoffman,	

☞ For forms of application, and any other information, apply at the office, No. 24 SOUTH STREET, where all cases are immediately attended to. Insurance can also be effected for any length of time that the applicant may desire.

***Applications for insurance in the country can be made by letter direct, or through the medium of correspondents of the party, residing in Baltimore. Answers can be promptly given, with all relative information which may be desired. Letters to be addressed to

FRED'K WOODWORTH, Sec'y.

Baltimore, September, 1849. sep 1

CHICKERING'S PIANOS.

THE subscriber is sole Agent in Baltimore, for the sale of Chickering's celebrated IRON FRAMED GRAND & SQUARE PIANO FORTES, and is constantly receiving supplies from the factory in Boston, which are sold at the same prices as charged by Mr. Chickering.

Chickering's Pianos are unquestionably the best instruments manufactured in the United States. In regard to superior quality of tone, touch, durability, and all the essential qualities of a Piano, they are admitted by the most eminent Pianists to be equal to Erard's, of Paris, or Broadwood's, of London. Although there are several factories in Boston and New York of high reputation, Mr. Chickering undoubtedly stands at the head, possessing eminent talent, skill, untiring industry and experience of some 35 years as a manufacturer of pianos, with abundant means to enable him to carry out his plans in producing the very best instruments.

Orders from the country, entrusted to the subscriber, either for Pianos, Music or any article in his line of business, will be faithfully executed. F. D. BENTEEN,

oc1-6t 181 Baltimore street.

AGRICULTURAL IMPLEMENTS—LABOR SAVING MACHINERY.—*GEORGE PAGE*, Machinist & Manufacturer, Baltimore-st. West of Schrader st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $300, and each simple, strong and powerful. His *Horse Power & Thrashing Machine*, he is prepared to supply at the low price of $125 complete; the Thrashing Machines without the horse power, according to size, at $50, 40, 65 and $75; Improved Seed and Corn Planter, Portable Tobacco Press; Portable Grist Mills complete, &c.

LIME.

THE subscribers are prepared to furnish Building and Agricultural Lime at the depot on the Back Basin, corner of Eden and Lancaster-sts., which they will warrant to give satisfaction, it being burnt from pure Alum Lime Stone, equal to any found in the United States. Orders may be left with WILLIAM ROBINSON, No. 15 Hollingsworth-street, near Pratt.

f1tf PELL & ROBINSON, City Block.

DUVALL & IGLEHART,

GROCERS AND COMMISSION MERCHANTS,

No. 78 LIGHT STREET WHARF,

Invite the attention of their friends, and the public generally, to their large and general assortment of GROCERIES, embracing every *article* in that line of business, and which they will sell upon pleasing and liberal terms, and at the lowest prices. Any one in want of any article in their line will find it to their advantage to give them a call. *They will also pay particular attention to the sale of all kinds of produce.*

Baltimore, October 1, 1849. 6t

SPLENDID COLORED DAGUERREOTYPE PORTRAITS.

By C. W. PURCELL, (late operator for *Broadbent & Carp*,)

No. 138 BALTIMORE STREET,

Over the American Office, and adjoining the Farmer Office.

HAVING a thorough knowledge of all the latest improvements in this beautiful art, Mr. Purcell feels a confidence in assuring the public that all pictures taken at his establishment shall combine a most correct likeness with the highest artistical skill. He will undertake to give the fullest satisfaction, or no charge will be made.

Ladies and gentlemen are requested to call at his rooms and examine his specimens. sep 1-ly

A. G. MOTT.

MANUFACTURER OF

PLOWS, HARROWS, CULTIVATORS, GRAIN CRADLES, WHEAT FANS, CORN SHELLERS, CYLINDRICAL STRAW CUTTERS, &c. &c.

☞ Plow Castings, of the New York composition called metal, always on hand, and old implements repaired, at No. 8 ENSOR STREET, adjoining the Bel-air Market, Baltimore. Jan1

WATER RAMS.—The undersigned will put up Water Rams on the farms of gentlemen in the vicinity of Baltimore, and guarantee their performance. Rams of his construction, can be seen on the farms of Messrs. Wm. Jessup, Wm. Tagart, John Merryman, N. R. Merryman, E. P. Hall, Joshua Cockey, Dr. Tyson, Rider, and others, of Baltimore County, Md.; all of whom can testify to the correctness of the principle, and the value of the machine. All communications, or information upon the subject, will be promptly attended to. JAMES COOK.

Chatham Post Office, Chester County, Pa.

☞ Further particulars can be obtained of the Editor of the American Farmer, where orders may be left. jan1

Brinkleyville Vineyards and Nurseries.

UPWARDS of twenty years experience, and, therefore, proper tests had of plants, &c., enables the subscriber to offer articles in his line particularly well adapted to Southern use: Well rooted Trees and Grape Vines (of the latter, the most Scuppernong, as best grape South) at from 10 to 40 cents each, according to size; Wines from 1 to 6 dollars per gallon, according to quality. Orders, with remittances or equivalent, and letters of enquiry, post paid, promptly attended to by the agricutural public's humble servant.

SIDNEY WELLER.

Brinkleyville, Halifax Co., N. C., Dec. 26, 1849.

Mr. Samuel Sands, my Agent at Baltimore, and Messrs. Peebles, White & Davis, at Petersburg, Va.

N. B. As invited by most respectable citizens of Raleigh (80 miles) to branch off my establishment thither, I may do so, if a suitable partner offers to manage my vineyards, and he put in a few hundred dollars for meeting expenses of ingredients, &c., for next crop of wine, that I may turn my resources to a new quarter; or if, for a few thousand dollars offered, or not to make too great a sacrifice, I *might sell* low, to *remove* to Raleigh. A *speculation* here offered, better, perhaps, than that of going to California. [f 1-tf] S. W.

CORN PLANTERS,

WARRANTED the best article in use. Price, $20. For sale by E. WHITMAN,
f1 Cor. of Light and Pratt streets, Baltimore.

BONE-DUST AND POUDRETTE ESTABLISHMENT.

On Harris' Creek, at Canton, Baltimore.

THOMAS BAYNES, continues the manufacture of *POUDRETTE*, and is prepared to supply any orders for the same—The article manufactured by him, will be found probably more valuable than any made in the Eastern cities. His *BONE-DUST* weighs from 55 to 60 lbs. to the bushel, and is as fine as any article sold in this market. Price of Bone Dust, during the winter months 50 cents per bushel. Poudrette, $1.50 per barrel. Persons sending their carts or wagons to the factory, can obtain the Poudrette at 20 cents per bushel.

(☞Any orders left at the factory, or with Mr. S. SANDS, editor of the "*Farmer*," at the State Agricultural Society's Rooms, will receive immediate attention. Terms, cash.

jan1-tf.

AGENCY

For the Purchase and Sale of Improved Breeds of CATTLE, SHEEP, SWINE, &c.

I WISH to remind the farmers and planters of the Southern and Western States, that I still continue to purchase and sell improved Stock,—such as Cattle, Sheep, Swine and Poultry, of the different kinds and breeds, at a very reasonable commission. They will be carefully shipped, or sent away as ordered.

All letters, post paid, addressed to me, at Philadelphia, will be attended to without delay.

AARON CLEMENT.

sep 1 6t

To Planters, Farmers, Mill Owners and others.

MURRAY & CLARK,

MILLWRIGHTS AND MACHINISTS,

RESPECTFULLY inform the public that they are now established in BALTIMORE, MD., AND ELIZABETH CITY, N. C., and are prepared to furnish all kinds of MILL-WORK, HOISTING MACHINES, CRANES and AGRICULTURAL MACHINERY, at the shortest notice, and as cheap as can be got elsewhere, such as Mill Patterns, Mill Castings, Wrought Iron Work, Brass Castings and Agricultural Machinery, such as Horse Powers, for all purposes, Thrashing Machines, Portable Grist Mills for hand or power, Grain Fans; Straw, Hay and Fodder Cutters, for hand or power, Corn Crushers, for hand or power, Grind Stones, Picks, Mattocks, Grubbing Hoes, Axes, Wrought Plows, and Plow Castings, also the far-famed PETTIGREW CORN SHELLER, improved by Murray, that will shell from 300 to 700 barrels of Corn per day, and would refer to the following gentlemen, who have them in use.

Perquimans Co, N. C.—Edmond B. Skinner, Benj S. Skinner, Francis Nixon, Col. James Lee, A. C. Toms, H. N. Mause, Thomas Newby, Dr. C. M. Ford, James M. Sumner, Esqrs.

Halifax, N. C.—Thomas P. Devereux, David Clark, Esqrs.

Pasquotank Co, N. C.—William Glover, William H. Davis, Joseph H. Pool, John C. Barnes, George O. Pool, Robert Pendleton, Thomas F. Banks, William Charles, Edmond Perkins, James E. Weeks, Mark S. Sawyer, Thad. F. Banks, James L. Mullen, Esqrs.

Chowan Co, N. C.—James C. Johnston, Thomas D. Warren, Aug. Moore, Joshua Skinner, Esqrs.

Bertie Co, N. C.—John Devereux, Esq.

Camden Co, N. C.—W. N. Gregory, Major Gregory, Wm. R. Abbott, Dr. P. N. Mullen, Esqrs.

We here take pleasure in giving the following Extract of a letter received on the 29th of September, 1849, from Thomas D. Warren, Esq., Endenton, Chowan Co., N. C.

DEAR SIR:—Your letter asking my opinion as to the performance of the *Horse Powers and Thrashers*—furnished me by you, was duly received; in answer, I am happy to say that they are very excellent Machines, and deserve all the praise that I can bestow upon them. The principle of the powers is good, and combines great velocity with easy draft—is simple and easily adjusted, which is a great disideratum to a farmer. I am highly pleased with their performance, and give them preference to any I have ever used or seen. As to Fans—I have one from Baltimore, one from New York, and several others, but none are equal to the one sent me by your partner, Mr. Clark. I shall order more from him of the same sort. With respect, &c., I am yours,

THOS. D. WARREN.

MURRAY & CLARK:—The Fan spoken of above, is one of the same pattern that Mr. Hathaway wrote to us of, as having cleaned one thousand bushels of Wheat within one day.

The following is handed to us by Mr. A. W. Willett, who is now operating with two of our Powers and Thrashers.

DEAR SIR:—In answer to your inquiry about Machines, we would respectfully say to all those that are in want of Machines, that yours is the best we have seen—as it does not break the grain—leaves the straw in good condition—works easy, and thrashes as clean and as fast as any we have seen—and for durability, there is none better made.

Respectfully yours,

G. MYERS, JR.

JOHN CONNELLY, Manager for Capt. McBlair, HIRAM HAUFMAN, MOORE and HOOVER.

MR. A. W. WILLETT: *Baltimore, 2d Oct.*, 1849.

Sir:—In reply to yours of 25th inst., I have much pleasure in stating that the thrashing done for me was highly satisfactory; the performance of your Machine appeared to be perfect.—Should I have more thrashing to do, and you were able to attend to it, I should employ you to do it.

Yours respectfully, H. GELSTON.

Baltimore County, Md., Oct. 2d, 1849.

Having witnessed the operation of Mr. A. W. Willett's Threshing Machine, I take pleasure in recommending it to any who may wish to employ or purchase such a Machine. This Machine made by Messrs. Murray & Clark, was employed by me for something less than two days and a half in getting out a crop of oats. In my judgment it performed its work thoroughly, and with sufficient rapidity—almost without friction, and what is unusual, without very little noise. The arrangement of the teeth is such as to prevent their flying out and endangering the men when any of them are broken by the accidental introduction of small stones or other hard substances. SAML. McCULLOH, JR., M. D.

About the *Hand Corn Shellers* which received the Premium at the late Fair of the Agricultural Society, that will shell and seperate 50 barrels of corn per day, we would refer to the following gentlemen who have them in use. Joseph H. Pool, William Crawford, Joshua Stewart, William Temple, Esqs., of Pasquotank County, N. C. and Nathan Halstead, Esq. of Camden County, N. C. A great number of these Shellers have been sent to Savannah and other places.

About *Portable Mills*, which we Manufacture for the different purposes of Grinding Wheat, Corn, Rye, Oats, Sugar, Coffee, Salt, Salt Petre, Red Lead, Chrome Ore, Magnesia, Alum Clay, Tartaric Acid, Cream Tartar, all kinds of Spices, Paints, Plaster, Coal and other purposes. The following gentlemen have them in use in the City of Baltimore. Mr. P. S. Cappell, Mr. William Davison, Baltimore Eagle Works, E. Stabler & Co., Messrs. Richstine, Mr. Vanness, Mr. McNeal, Messrs. Powell and Rimby. The largest of this kind of Mills is now in operation by Steam Power at the Junction of the Macon and Georgia Rail Road, Grinding Corn and Wheat.

We also Manufacture superior *Bone Mills*, and would refer to P. S. Chappell, John Kettlewell and Wm. Davison, Esqs.

Having served regular Apprenticeships to the Millwright Business, we feel assured that we can give perfect satisfaction to all who may favor us with their custom, either by day work, or in the performance of contracts, and will warrant all Grist, Saw, and other Mills, &c., propelled by Water, Steam, Wind or other Power, planned and erected by us, to operate well. Mill Work or other Machinery repaired at the shortest notice.

Nearly all the above gentlemen are acquainted with us as Millwrights. All orders thankfully received and promptly attended to.

MURRAY & CLARK, MILLWRIGHTS & MACHINISTS,
No. 21 *York street, near Light st., Baltimore.*

Nov. 1,

E. WHITMAN'S

Agricultural Warehouse

AND

SEED STORE,

No. 55 Light street, Baltimore,

WILL contain, this season, the largest stock of Improved AGRICULTURAL IMPLEMENTS ever offered for sale in this country, amongst which will be found

100 Whitman's Superior Wrought Iron Railway HORSE POWERS, which received the *first premium* at the last Fair of the *Maryland Agricultural Society.*

100 LEVER or SWEEP POWERS, among which will be found all the latest improvements; also, the Eddy or Saplin Power, which is portable, simple and durable, consisting of one wheel only.

200 Whitman's THRESHERS, which received the *first premium*, in Baltimore, in 1849. The cylinder of this Thresher, being all in one piece of iron, will last **100 YEARS**, in constant use. A great improvement has recently been made in the teeth or spikes, which makes it *the most perfect machine* now in use.

100 other THRESHERS, comprising various kinds and improvements.

7,000 PLOUGHS, consisting of every kind now in use, and a great variety of Cultivators, Harrows, Corn Planters, Corn Shellers, Straw Cutters, Wheat Fans, Cradles, Churns, &c., together with every other article in the farming line.

f1 EZRA WHITMAN, Jr.

WHEAT FAN DEPOT.

GRANT'S, Bamborough's, Strong's, Rice's and various other WHEAT FANS, will be sold, wholesale and retail, at manufacturers' prices, by E. WHITMAN, Jr.

f1 Cor. of Light and Pratt streets, Baltimore.

GARDEN SEEDS.

FRESH and Genuine, raised by the best seedsmen in America and Europe, expressly for *E. Whitman, Jr.*, and sold, wholesale and retail, at his warehouse, 55 Light street, Baltimore.

☞The above seeds are put up for retailing, in the neatest manner, in packages, with name and directions printed on each parcel, at 6 1-4 cents each.

☞Merchants can be supplied, on the most favorable terms, with Boxes, from $5 to $50 each.

☞Market Gardeners are particularly invited to examine our stock of Seeds, which have been selected with great care, and are recommended the very best quality that can be procured. Also,

☞*Fruit and Ornamental Trees*, and *Farm and Garden Tools*, of every description.

☞GARDEN SEED PLANTERS. Price, $10. One man or boy will plant from one to five acres a day of garden seeds, such as beet, carrot, turnip, onion, &c. &c. For sale by

E. WHITMAN,

f1 Cor. Light and Pratt streets, Baltimore.

Best Agricultural Implements!

The *first premium* of the Maryland Agricultural Society was awarded to E. Whitman, Jr., in 1848 and 1849, for the largest and best display of Agricultural Implements. f1

Trees, Plants, Flowers and Seeds.

THE subscriber offers for sale a choice selection of Fruit and Ornamental Trees, Flowering Shrubs, Evergreens, Grape Vines, Roses, Camellias, Dahlias, Herbaceous Plants, Bulbous Roots, with a large collection of Greenhouse Plants in general, and a fresh stock of

GARDEN AND FLOWER SEEDS,

Just imported (annually), of superior quality, and offers every thing in his line on the most reasonable terms.

Victoria Rhubarb and Sea Kale plants, with Cabbage, Cauliflower, Egg plants and Tomatoes, in season for planting. All orders attended to. Address

JOHN FEAST, Florist and Seedsman,

f1 279 Lexington street, Baltimore.

FERTILIZERS.

PERUVIAN and Patagonian GUANO, Bone Dust, Plaster of Paris, Poudrette, and Combined Manure, a new and excellent article.

A. B. ALLEN & CO.

f1 2t 189 and 191 Water street, New York.

AGRICULTURAL AND HORTICULTURAL IMPLEMENTS.

A LARGE and complete assortment of all kinds, both of foreign and American manufacture.

Also, Field and Garden SEEDS, imported and of home growth, and warranted fresh and true of their kinds.

A. B. ALLEN & CO.

f1-2t 189 and 191 Water street, New York.

JUST PUBLISHED,

THE COTTON PLANTATION RECORD AND ACCOUNT BOOK.

BY THOMAS AFFLECK.

A NEW EDITION, revised and improved.

No. 1 for a plantation of 40 hands or under, $2 5
No. 2 " 80 " " 3 0

This work, now in general use on well regulated plantations, consists of a good sized Blank Book, of excellent paper and well bound, and with every Record, Inventory and Account necessary for Planters or Overseers, properly arranged, ruled and headed. Send orders to WELD & CO., Publishers,

f1-2t New Orleans.

FOR SALE—A small tract of LAND, in Anne Arundel county, about 9 miles from Laurel Factory, containing 64 3-4 acres. The land is good, and easily cultivated—but 5 acres cleared. The house is small. There is a good garden. It is well suited for a wheelwright or cooper. 700 cords of wood may be taken off, and enough left for the place. Price, $550—$300 in cash, the balance in 5 years, with interest.

FOR RENT—A small FARM, of 40 acres, of good land, with good buildings, fruit, and a market at hand, being near the Laurel and Savage Factories. It would answer well for a physician. It would be rented for a term of years. For further particulars, apply to S. SANDS, office of the American Farmer. f1-tf

CONTENTS OF THE FEBRUARY NO.

Profits of Farming, W. Newton, of Va. 255
The Reybold Family 257
Properties of Bone Dust " 258
The Flower Garden " 258
Garden Fruit Trees " 258
H. M. P. on the field cultivation of miscellaneous crops 258
Chappell's Salts, by Northampton 261
Farm Work for the month 262
Talbot Co. Crops, &c. 265
Guano on Tobacco 266
South-Western Virginia 267
On the action of Salt " 268
Guano on Corn and Wheat 268
Mr. Duckett's Corn " 269
Wheat in Virginia and the West 268 272
A Wild Cat in Md. 269
Urine and Soot as a manure " 270
Md. State Ag. meet'g, &c. 270
To correspondents, &c. 270
Notices of essays, &c.; new works, &c. 270-1, 3, 5
Action of Drovers in Ohio 271
Agricult'l Education 271, 274
Michigan Farmer, 271
Sheep Husbandry, Wire Fences, 272
Charring butt ends of posts "
Machine for raising marl from pits "
Improvement of an old field 273
Manuring Orchards "
Cheap crop of Sweet Potatoes "
Ag. Convention in Va. "
Wet Lands and Lime "
Poudrette, Cotton in India, Inspections in Baltimore 274
Smith's vertical Gate (cut) 274
Essay on Tobacco, by E. S. Milburn "
Hay Fork (cut), by Edward Stabler 275
On the use of Oxen, by do. 276
Work in the Garden 276
Culture of the Grape, and manufacture of Wine 276
Memorial on the subject of Dogs 277
The Morgan Horse in Md. 278
Meteorological Table, Markets, &c.